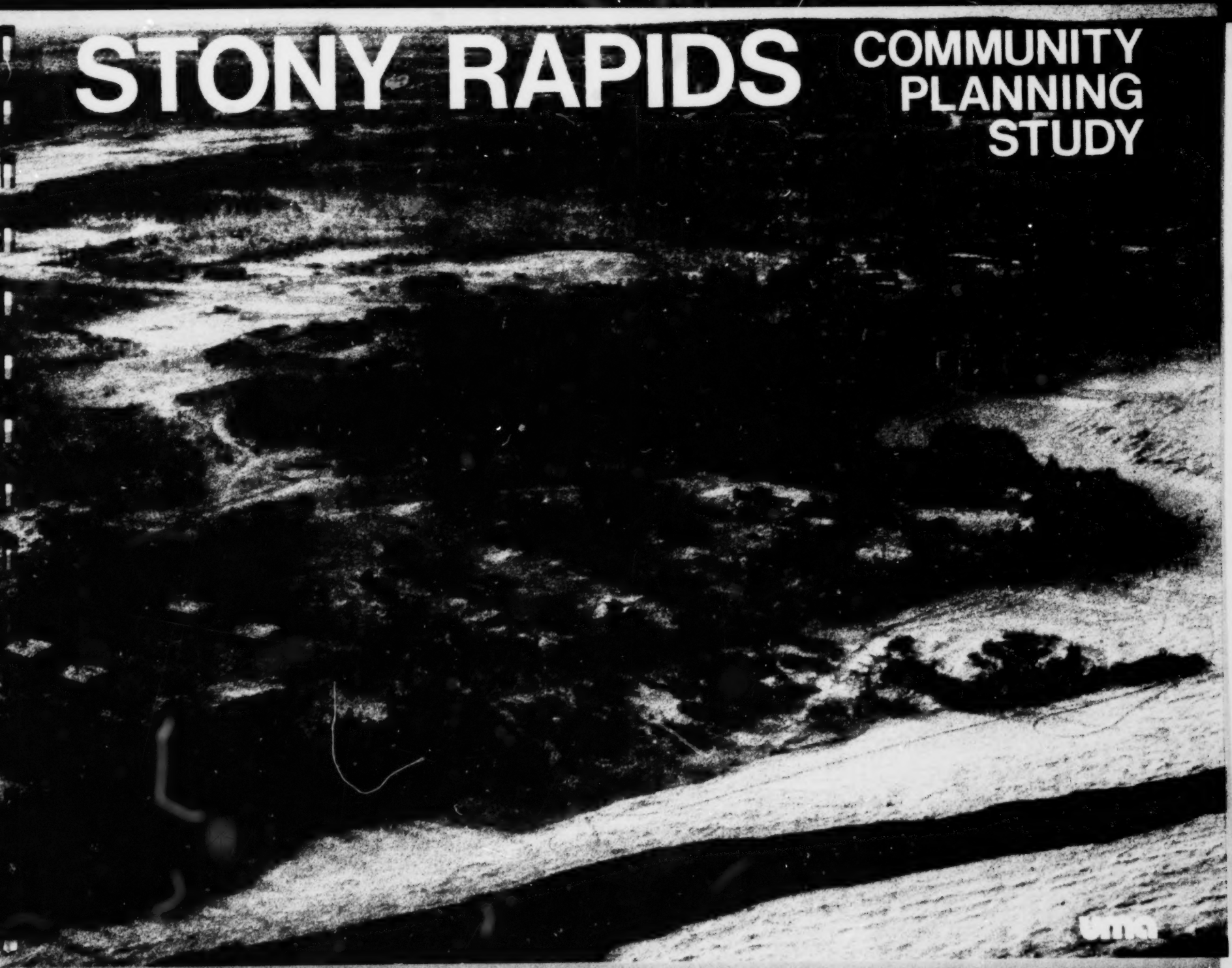
STONY RAPIDS COMMUNITY PLANNING STUDY



UMA Engineering Ltd.
Engineers & Planners

P.O. Box 539, 300-3301 8th St. East,
Saskatoon, Saskatchewan, Canada S7H 5K5

October 31, 1985

Chairman and Councillors
Northern Settlement of
Stony Rapids
General Delivery
Stony Rapids, Saskatchewan
S0J 3T0

Mr. John Lere, Director
Community Planning
Saskatchewan Urban Affairs
P.O. Box 3003
Prince Albert, Saskatchewan
S6V 6G1

Dear Sirs:

Re: Stony Rapids Community Planning Study

We are pleased to submit the final Stony Rapids Planning Study to you and to the people of Stony Rapids.

We trust that the Planning Study will serve you well as your basic guide to the future growth of your community. This has been a most worthwhile and enjoyable assignment for us. We hope that we may be able to provide our services to the community again in the future.

We would particularly like to thank the current Chairman, Leo Voz, and all current and past Council members for their support and interest during this project. We also thank Nicki Brandon of the Community Planning Branch for her guidance during the course of the Study. We met many of the residents of Stony Rapids during the course of the Study. We have appreciated their input and interest and wish them well, individually and collectively in the future. Finally, we are grateful to the individuals from a number of government departments who provided information for the Planning Study.

We wish Stony Rapids much success in achieving your objectives.

Yours sincerely,

UMA GROUP

David Klippenstein

David Klippenstein, Head
Planning and Design Department

/emg

PREFACE

The firm of Underwood McLellan Ltd., Consulting Engineers and Planners of Saskatoon (UMA Group,) was selected to prepare this Planning Study in September, 1983 following consultant presentations to the Council of that time.

The consultant travelled to Stony Rapids seven times to meet the community representatives and to become totally familiar with the community and the region.

An initial visit was made and meeting was held on September 26 to 28, 1983. Subsequent time in the community was spent from November 28 to 30, 1983; April 3 to 5, 1984; June 13 to 15, 1984; December 3 and 4, 1984; and on June 3 and 4, 1985.

All meetings with the Council were open to the public, as is the custom in Stony Rapids. In addition, Public Meetings were held on November 29, 1983 and June 3, 1985. Also, the Planning Study was presented to and discussed with students of the Stony Rapids School, Grades 1 and 2, and Grades 6 to 10 on June 3, 1985.

An initial draft report was completed by October, 1984. This was revised and expanded to a second draft report which was presented to the Community in June of 1985. Further revisions were then suggested by the Settlement Council and by the Community Planning Branch of Saskatchewan Urban Affairs before final printing.

Members of the Council of the Northern Settlement (formerly L.A.C.) of Stony Rapids during the course of the Planning Study (1983-1985).

Leo Voz, Chairman

Victor Robillard, former Chairman and Councillor

Mary Jane Kasyon, former Chairman and Councillor

Matthew Yooya, Councillor

Don Derksen, Councillor

Gilbert Mercredi, Councillor

Victor Sayazie, Councillor

Elizabeth Segretts, Councillor

Lena May Segretts, Councillor

UMA STUDY TEAM

David Klippenstein, Planner

Arvid Pederson, Engineer

Marc Dansereau, Planning Technician

Elaine Gates, Typist

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PART ONE
PAST AND PRESENT

1.0 INTRODUCTION

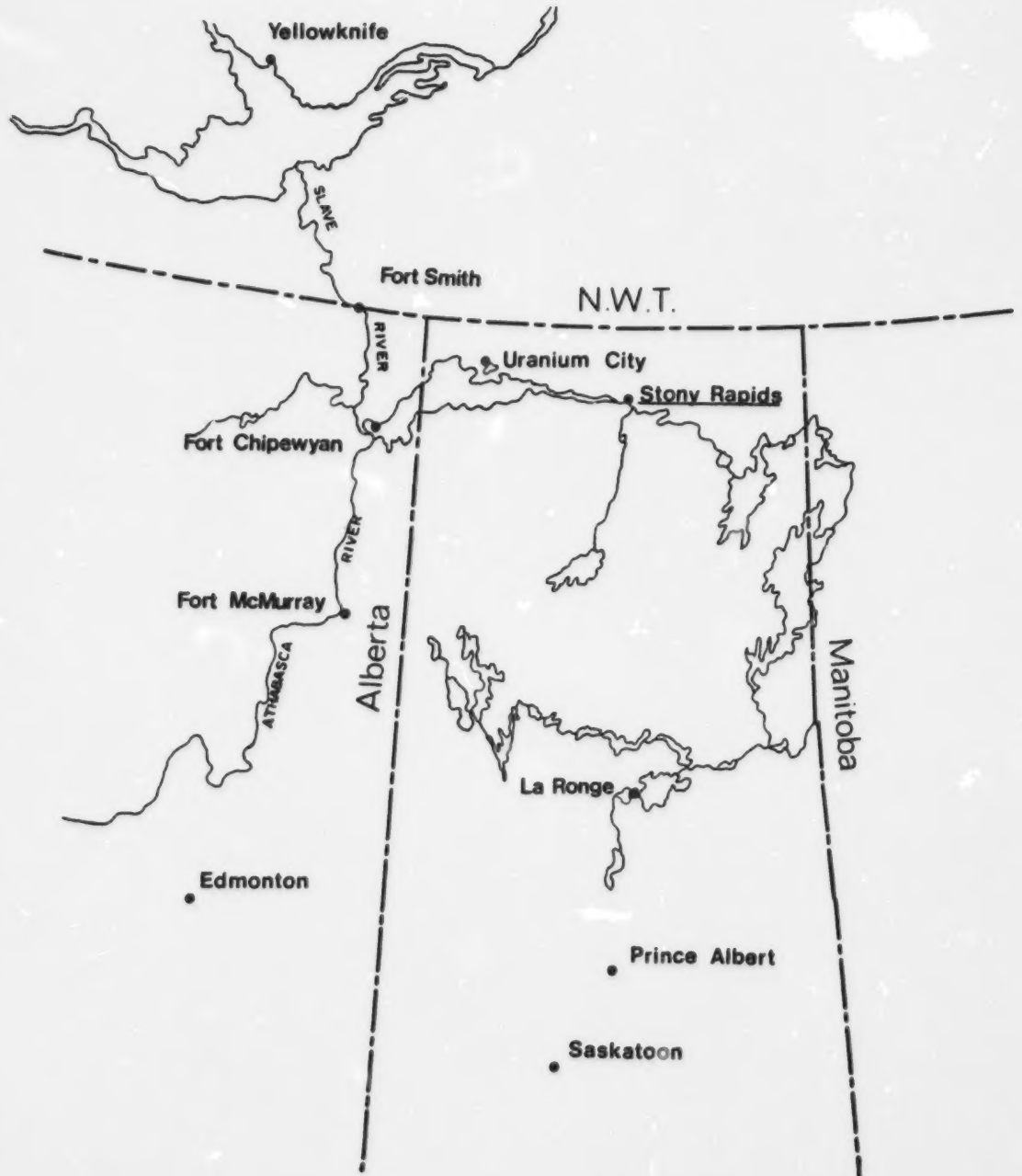
The Northern Settlement of Stony Rapids is located in the far north of Saskatchewan on the Fond du Lac River/Lake Athabasca system. The community is only sixty miles (one hundred kilometres) south of the border with the Northwest Territories, while it is 285 miles (475 km) north of La Ronge and 470 miles (800 kilometres) north of Saskatoon (see Figure 1).

The community is somewhat isolated as the nearest all-weather road ends about one hundred miles to the southeast, near Wollaston Lake. Access to the community is primarily by airplane, although barge service has been available from Fort McMurray during the past thirty years. In the winter of 1983-84, a winter road connected Stony Rapids with Uranium City and thence to the outside world for a brief period. This was an historic event, and, perhaps, a preview of an all-weather link to the south in the future. In any event, the relative isolation of the community has a significant effect on all aspects of community life.

The population is young and growing rapidly, relative to other Saskatchewan communities. With a 1984 population of 285, Stony has probably surpassed Uranium City in size and is therefore the largest non-Reserve community in the Athabasca Region.

While Stony Rapids was designated as the administrative centre for provincial government activities in the far north of Saskatchewan as early as 1947, the real concentration of government, business, and services in the Athabasca Region developed at Uranium City, one hundred miles (160 kilometres) to the west. With the decline of Uranium City in the past three years from a community of 3,000 people to the current reported population of 250, attention has once again shifted to Stony Rapids as the centre of the region which includes the rapidly growing communities of Black Lake, Fond du Lac, and Wollaston Lake.

The preparation of this Planning Study is timely. Uranium City has declined, regional Indian Bands are taking an increasingly greater control of their affairs, the structure of local government has changed, a water and sewer system is in the design stage, and surface transport links are being improved. The objective of the Planning Study is to provide a tool for the Council and people of Stony Rapids to create an orderly, attractive and liveable community.



STONY RAPIDS COMMUNITY PLANNING STUDY

LOCATION

1

2.0 REGIONAL SITUATION

Stony Rapids is centrally located within a region which extends south to Cree Lake, southeast to Wollaston Lake, west to Uranium City and Camsell Portage and north into the territories. Much of the land so described is the so-called Athabasca Region, the watershed of Lake Athabasca. However, Wollaston Lake watershed also is related to the Stony Rapids area, while the Athabasca Region extends into Alberta. For the purposes of convenience, the larger Stony Rapids region will be considered to be all of Saskatchewan north of Cree Lake or Latitude 57°30'.

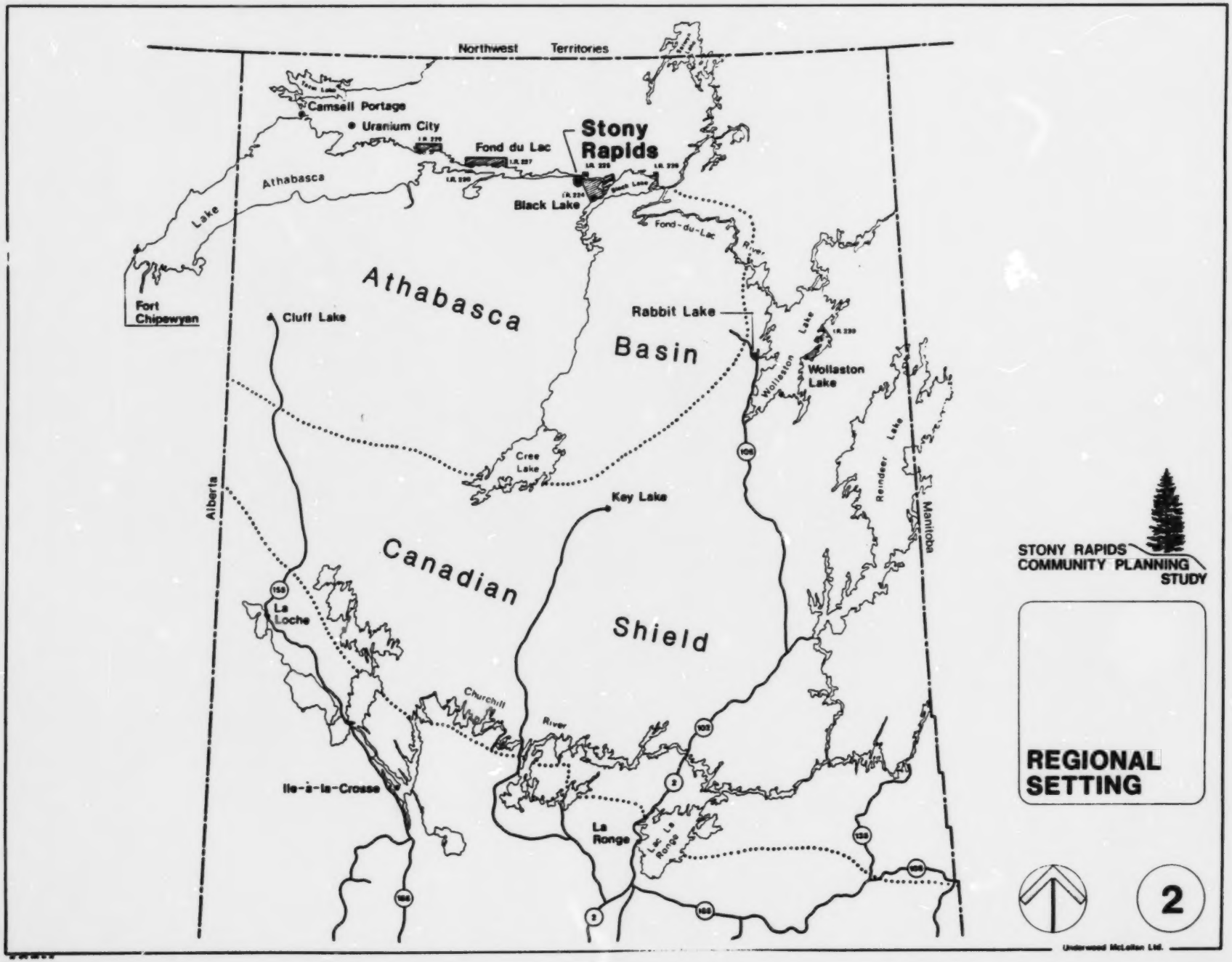
A smaller sub-region should also be defined, including the land and communities along the east arm of Lake Athabasca and the lower Fond du Lac River system and Black Lake. This smaller sub-region includes the communities of Fond du Lac, Stony Rapids. Black Lake and Stony Lake.

2.1 The Region: Physical Setting

The Region can be divided into two major geographical divisions; the Canadian Shield and the Athabasca Basin (see Figure 2). The Athabasca Basin lies between Lake Athabasca, Wollaston Lake and Cree Lake. It is an area of rolling country, sand plains, sand and gravel hills (drumlins, kames and eskers), muskeg and silt deposits. Underlying the surface deposits of silt, sand and gravel is the Athabasca Formation, mainly sandstone, siltstone and shale.

The Canadian Shield, which surrounds the Athabasca Basin on all sides except the west, has more rugged topography. Much of the bedrock is exposed as rocky ridges, with muskeg in the intervening low areas. The geology of the Shields is complex, being composed of a variety of volcanic and metamorphic rocks. To the north of Lake Athabasca in the Tazin Lake Uplands, the land is probably the most rugged in all of Saskatchewan and could almost be described as mountainous.

The zone of contact between the Athabasca Basin and the Canadian Shield is both interesting and significant. The most significant uranium finds have been found along the edge of the Basin, of which Key Lake and Rabbit Lake are two of the better known examples. Also, scenically, the contrast between the rugged landscape of the Shield and the rolling plains of the Basin is quite remarkable. Nowhere is this more evident than along the Fond du Lac River at Stony Rapids and to the west towards Fond du Lac. Here the north shore is quite rugged while on the south shore the topography is more subdued.


Northwest Territories
Camsell Portage
Uranium City
Fond du Lac
Stony Rapids
Athabasca Lake
Black Lake
Fond-du-Lac River
Athabasca Basin
Fort Chipewyan
Cluff Lake
Rabbit Lake
Wollaston Lake
Cree Lake
Key Lake
Alberta
Canadian Shield
Manitoba
Reindeer Lake
La Loche
Churchill River
Ile-à-la-Crosse
La Ronge
Lac La Ronge
STONY RAPIDS COMMUNITY PLANNING STUDY
REGIONAL SETTING
2
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The south shore of Lake Athabasca has scenic, environmental and geographical interest. Here the sand deposits have been piled into huge, bare dunes, which still shift with the wind. The Athabasca Sand Dunes extend for hundreds of miles from within Alberta to near the eastern end of Lake Athabasca. Their significance has been recognized by being designated as an IBP International Biological Program Site.

Most of the Region is part of the Athabasca Watershed which in turn is part of the Mackenzie River system which drains the land north to the Arctic Ocean, ultimately. The Fond du Lac River drains about a tenth of Wollaston Lake northwest to Lake Athabasca. Major rivers which flow into the Lake Athabasca/Fond du Lac River system from the south include the William, McFarlane, Otherside, Cree and Waterfound Rivers. Rivers flowing in from the north include Straight, Robillard and Porcupine Rivers.

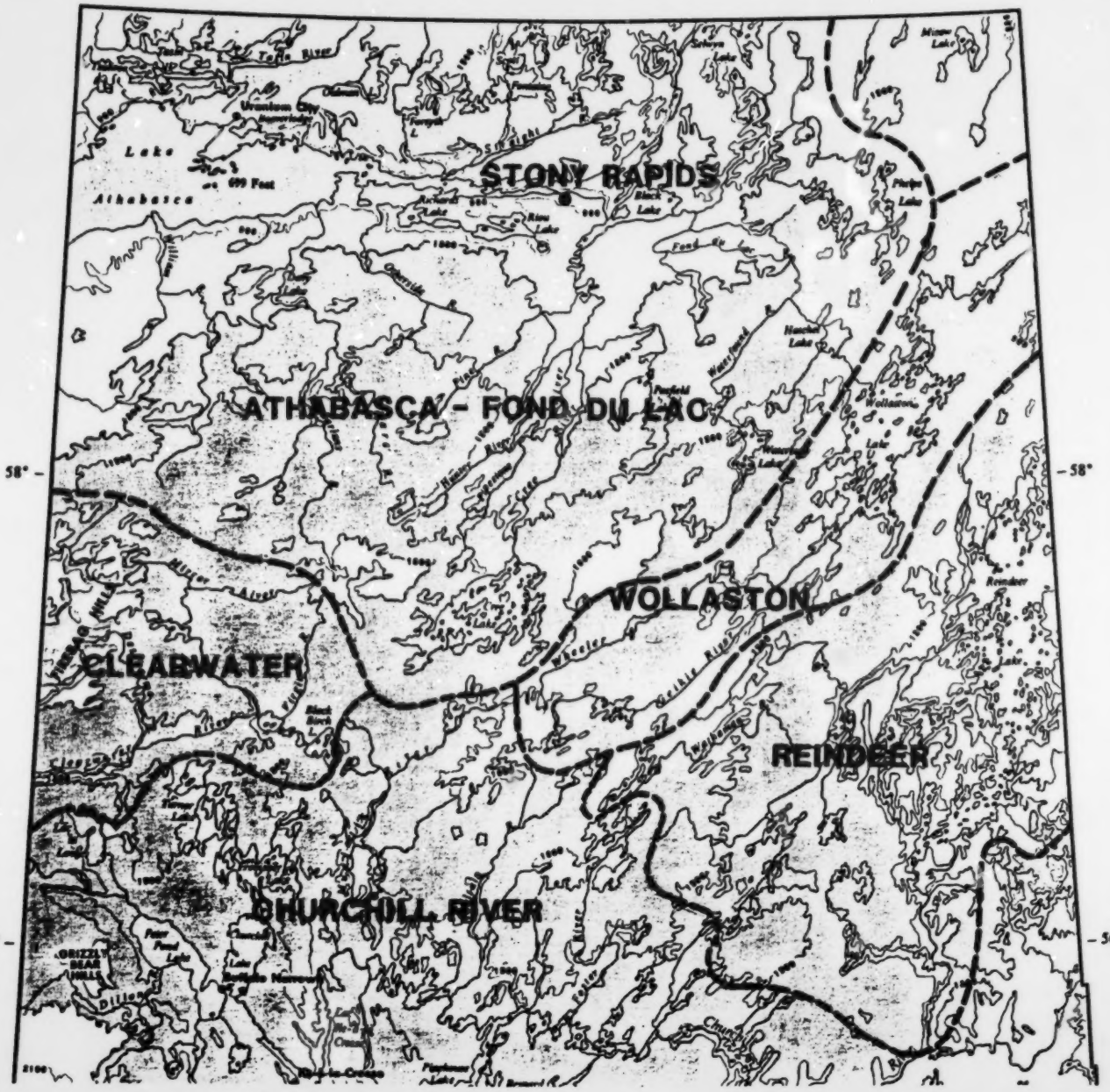
The Cochrane River is the other drainage outlet of Wollaston Lake at its northeast end. Its water joins the Churchill system and ultimately Hudson's Bay.

The Region includes a number of large lakes, of which Lake Athabasca is by far the largest. next in size is Wollaston Lake, then Cree Lake, while Black Lake appears to be the fourth largest. Other important lakes are Davy, Richards, Riou, Wapata, Pasfield, Hatchet and Waterbury, to the south, and Tazin, Fontaine, Scott, Dodge and Selwyn Lake to the north. In addition, there are literally thousands of lakes of lesser size, especially within the Canadian Shield.

Topographically, the lowest area of the Region is Lake Athabasca, with a surface elevation shown as 689 feet (210 m). From the Athabasca/Fond du Lac/Black Lake lowland, the land rises both to the south end and the north. Elevations of 1800 feet (548 m) are reached north of Black Lake, while to the south a maximum height of 2210 feet (673 m) is attained northeast of Cree Lake.

Between Black Lake and Stony Rapids, a distance of no more than twenty-five miles, the Fond du Lac River falls more than two hundred feet in a series of rapids, cascades and waterfalls. The most spectacular of these are Elizabeth Falls and Woodcock Rapids.

The forest cover throughout the Region is a mixture of jack pine and black spruce, with trembling aspen and white birch growing locally near water bodies. Extensive areas have been burned over, such as the burns to the south and west of Stony Rapids, and the burns north of Lake



STONY RAPIDS COMMUNITY PLANNING STUDY

DRAINAGE BASINS

3

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Athabasca in the Fond du Lac area. The forest is not considered generally to have commercial value due to limited height and diameter of the trees. However trees do reach saw log size in local areas, especially near lakes and rivers.

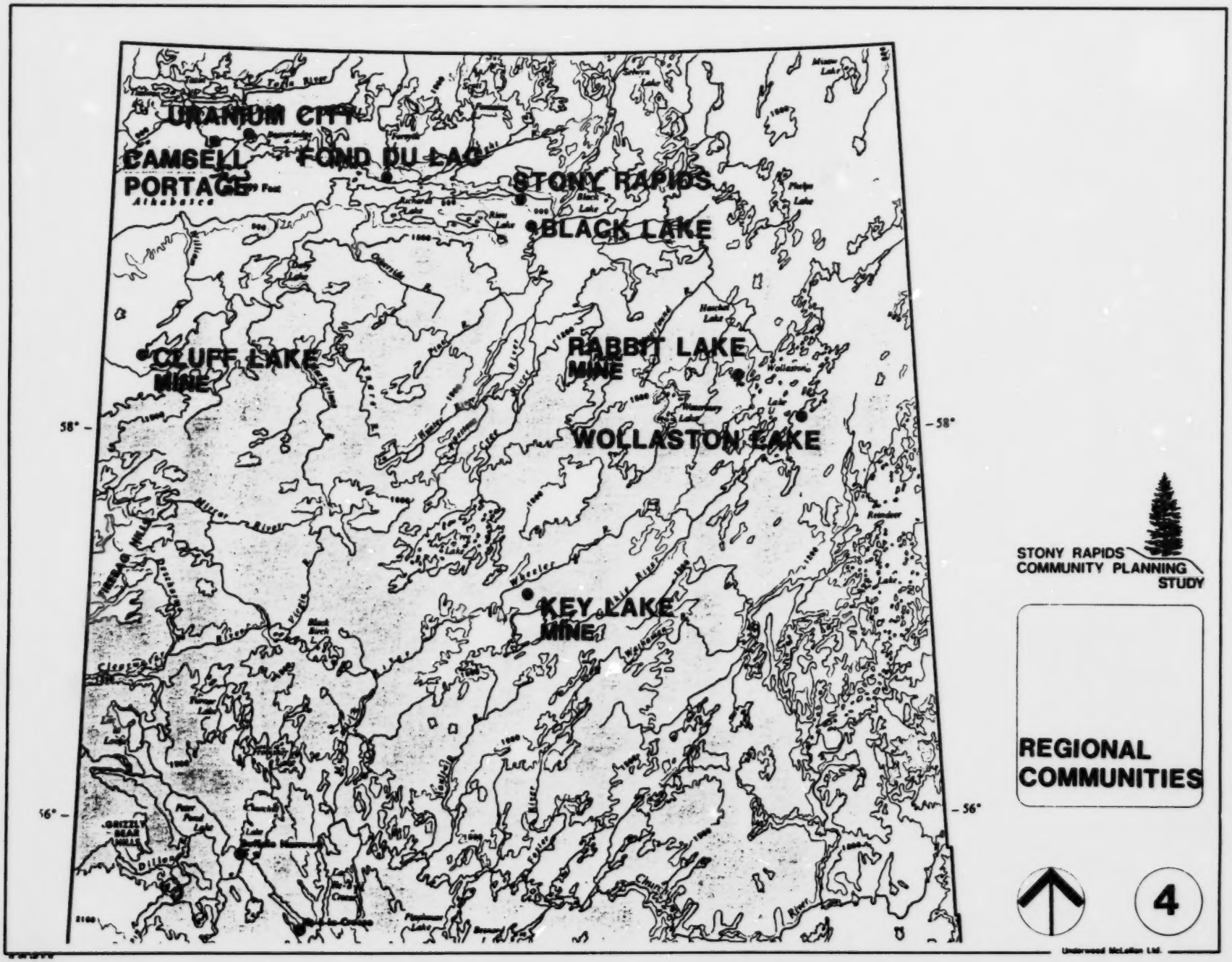
A number of species of big game are found in the Region. The best known is the Barren Ground Caribou. Occasionally the Beverly herd will winter as far south as the Fond du Lac River and beyond, although in the past few years, the herd has hardly travelled farther south than the North West Territories border. The Caribou are an important food resource to the native people of the Region. Other big game species are the moose and black bear. Fur bearing animals include the beaver, muskrat, mink, wolverine, marten, arctic fox, lynx, gray wolf and weasel. Most of these species are trapped throughout the Region.

The lakes and rivers of the Region support an abundance of fish species, which are significant both for sports fishing and commercial fishing potential. Arctic grayling, lake trout, northern pike, pickerel and whitefish are the most common species fished. Lake Athabasca, Black Lake and Wollaston Lake have been fished commercially. Within the Region, outfitters camps have been established on Creek, Engemann, Tazin, Engler, Scott, Black, Waterbury, Hatchet, Wollaston and Yaloweja Lakes and on the Otherside River. Sport fishing is the primary attraction of these lodges. Accessibility is by air, except for those camps on the west side of Wollaston Lake.

2.2 Regional Communities

The communities of the Region are primarily located along or close to the Lake Athabasca/Fond du Lac River/Wollaston Lake waterway system (see Map 4). From west to east, the communities are Camsell Portage, Uranium City, Fond du Lac, Stony Rapids, Black Lake (Stony Rapids Indian Band) and Wollaston Lake. Fond du Lac and Black Lake are primarily communities of Chipewyan Indians, while Wollaston Lake is a combined Indian Reserve (Lac la Hache) and Northern Hamlet. Uranium City, since the closure of the Eldorado Mine, has declined in population very dramatically and has lost much of its former population as well as the services it formerly provided.

Saskatchewan's three producing uranium mines are located within or near the region. Cluff Lake (Amok Resources Ltd.) lies south of Lake Athabasca, Rabbit Lake (Eldor Resources Ltd.) is located on the west side of Wollaston Lake, and Key Lake (Key Lake Mining Corporation) is just outside the Region southeast of Cree Lake.


URANIUM CITY
CAMSELL PORTAGE
FOND DU LAC
STONY RAPIDS
BLACK LAKE
CLUFF LAKE MINE
RABBIT LAKE MINE
WOLLASTON LAKE
KEY LAKE MINE
58°
56°
STONY RAPIDS COMMUNITY PLANNING STUDY
REGIONAL COMMUNITIES
4
Underwood McLellan Ltd.

All three mines maintain camps for their employees on a rotational basis. Workers are flown in and out from their home communities.

Aside from these settled communities and mining camps, the surrounding countryside is virtually uninhabited except for trappers' camps, a few outfitters' camps and mining exploration camps.

The current estimated populations of regional communities are shown in Table 1, below:

TABLE 1: REGIONAL POPULATION

Community	Estimated Population	Percentage of Regional Population
Black Lake	755 (1984 est.)	30.3
Wollaston Lake	588 (1984 est.)	23.7
Fond du Lac	541 (1983)	21.8
Stony Rapids	285 (1984)	11.5
Uranium City	250 (1984 est.)	10.1
Camsell Portage	65 (1984 est.)	2.6
Total	2484	100.0

Sources: S.H.S.P. and "Registered Indian Population of Canada", Indian and Northern Affairs Canada (INAC), 1983.

The populations of all communities with the exception of Uranium City are growing rapidly. According to the Athabasca Regional Services Study completed in 1983, the projected population of Black Lake would be 1320 by the Year 2000, while that of Fond du Lac would be 1000. Combined with projections for the other communities, a regional population of 3600 would result, even with a further decline in Uranium City.

The situation at Uranium City has been a dramatic example of the vulnerability of a single-industry resource community to changing circumstances. Once a busy mining town of 3,000, its population declined rapidly with the closure of the Eldorado Mine in 1981. By 1984, the population had dropped to an estimated 250 and has reportedly decreased since then. The hospital and some limited government and commercial services have sustained the limited population so far. In early 1985, the future of Uranium City as a viable community is in considerable doubt.

Some significant impacts of the decline of Uranium City have already been experienced.

The barge system is less frequent and reliable, medical and health services have declined, and banking and other commercial services have been withdrawn. There has been no major population shift to other regional communities, as most people leaving Uranium City went south, aside from about twenty families returning to Fond du Lac.

2.3 Access and Transportation

The Athabasca Region is the most isolated part of Saskatchewan. Access to the region is by air, barge and, lately, by winter road (see Map 5).

Scheduled air service is provided by Norcanair, linking Wollaston Lake, Stony Rapids and Uranium City with La Ronge and southern centres. Much travel in the region is done by charter air service.

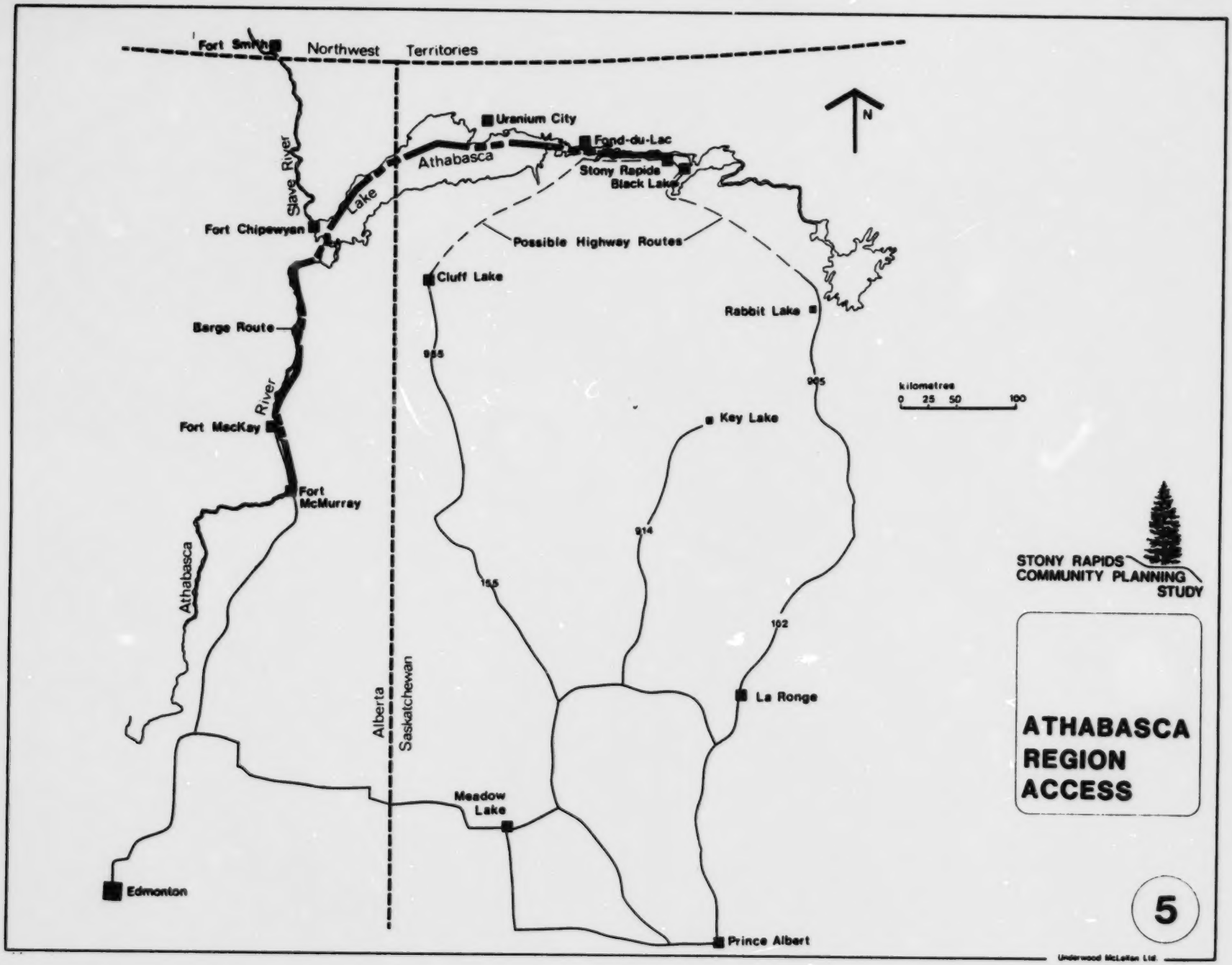
A barge service along the Athabasca Waterway provides for the transport of bulk goods to the region. From its base near Fort McMurray on the Athabasca River, the barge provides service to Fort Chipewyan, Camsell Portage, Bushell, Fond du Lac and Stony Rapids.

With the closure of the mine at Uranium City, the amount of freight shipped by barge is a fraction of former loads. The license for scheduled service has been given up by Northern Transportation Company Limited (NTCL) and has been assumed by a private carrier. Because of vastly decreased loads, barge service is now more costly, less frequent and less dependable.

The nearest all-weather roads to the region end at Rabbit Lake to the southeast and at Cluff Lake to the southwest. Uranium City has been served by a winter road across Lake Athabasca and in 1983-84, this was extended to the east to Fond du Lac and Stony Rapids. However the future of the winter road to Uranium City is in doubt due to the final decommissioning of the mine there.

The isolation of the region results in high costs for goods and services. Fresh food is flown in and, with the removal of the air transport subsidy in 1984, food costs are much higher than in the south. Bulk items, such as building materials or vehicles, must be brought in by barge. This requires ordering much in advance. The isolation and high cost of living is seen as a hardship to the people of the region and a deterrent to economic and social development.

The future of surface transport, whether by barge, winter road or all-weather road, is a matter of vital concern to all regional residents. Regional residents see the short term solution as being a winter road from Cluff Lake or Rabbit Lake, complemented by summer barge service. An all-weather road link to the south is seen as the only long-term solution to the problems of isolation and high transport costs which affect regional communities.


Fort Smith
Northwest Territories
Uranium City
Fond-du-Lac
Athabasca
Stony Rapids
Black Lake
Slave River
Lake
Fort Chipewyan
Possible Highway Routes
Cluff Lake
Rabbit Lake
Barge Route
955
905
River
Fort MacKay
Key Lake
Fort McMurray
914
Athabasca
155
102
Alberta
Saskatchewan
La Ronge
Meadow Lake
Edmonton
Prince Albert
N
kilometres
0 25 50 100
STONY RAPIDS COMMUNITY PLANNING STUDY
ATHABASCA REGION ACCESS
5
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3.0 HISTORICAL PERSPECTIVE

Prior to European contact, the Athabasca region was occupied by nomadic Chipewyans - hunters of barren-ground caribou who roamed between Great Slave Lake, the Athabasca River and Hudson Bay (Jenness 1977). With the establishment of the fur trade in the mid-eighteenth century, trapping became an important activity in the region (Bone et. al. 1973). Fur posts were established at Fort Chipewyan in 1788 and Fond du Lac in 1845.

During the 1920's and 1930's, Stony Rapids became primarily a trappers' village. However, new forms of economic development were beginning to encroach on the northern residents traditional trapping/hunting lifestyle. The McInnes Products Corporation introduced commercial fishing at Lake Athabasca in 1926.

With the discovery of gold at Lodge Bay on the northern shore of Lake Athabasca in 1934, prospecting and mineral development activity increased in the region. Subsequently, float planes were introduced into the Athabasca region to assist prospectors and mining companies in locating such mineral deposits as uranium, gold, silver, copper, nickel and iron; and to assist trappers in accessing the more remote parts of the region (Bone et. al. 1973: 16, 36).

During the 1940's and 1950's, Stony Rapids developed into a small but important regional administrative and service centre for both provincial and federal government agencies. In 1947, the provincial government established a school, a nursing station, and a natural resources/radio communications building. In the same year, the Department of Indian Affairs also established a sub-agency at Stony Rapids to serve the Fond du Lac and Stony Rapids Indian Bands.

The first legal survey was carried out in 1949. This survey established Caribou and Riverside Drives, and Johnson Drive, as well as the lots between them.

The construction of the airstrip in 1950 marked an important landmark in the history of Stony Rapids. Two years later a road was constructed to the Village of Black Lake, where a permanent settlement was being developed by members of the Stony Rapids Indian Band.

The decade of the 1970's brought rapid growth to the community. The edge of the Athabasca Basin was the scene of intense mineral exploration. Stony Rapids, as a transportation centre, played an active part in this activity.

4.0 STONY RAPIDS: PHYSICAL DEVELOPMENT

4.1 Physical Setting: Constraints and Opportunities

The community of Stony Rapids is located on the south bank of the Fond du Lac River. The land rises from 690 feet (210 m) above sea level at the river to 785 feet (239 m) at the airport about 2,000 feet (600 m) to the south. This vertical rise is about 95 feet (29 m) from river to airport. Consequently, in some places, slopes are quite steep, especially near the river. The lower slopes of Ration and Erickson steeps have slopes up to 20 percent, which is greater than the suggested maximum.

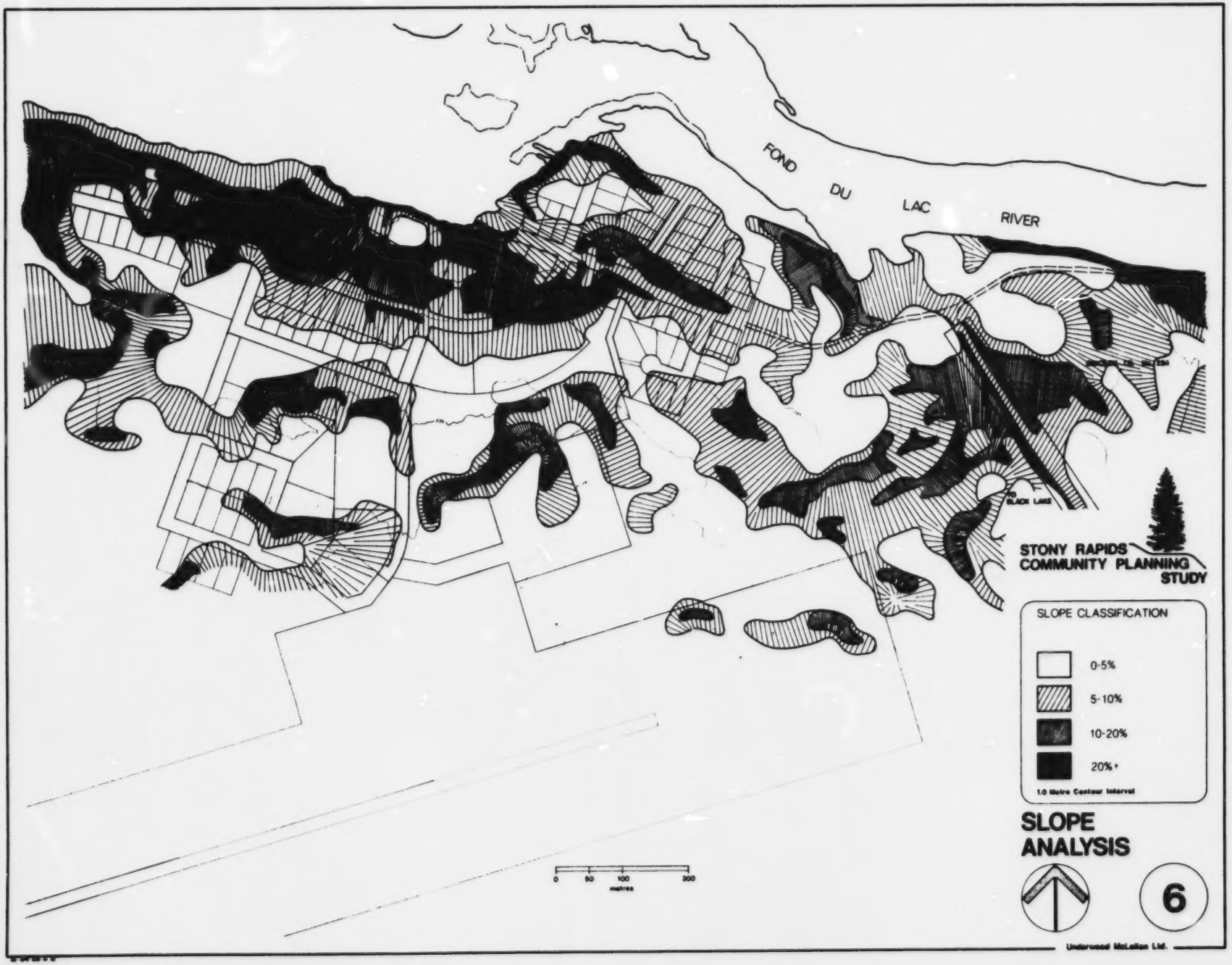
Map 6, Slope Analysis, shows the areas of steepest slopes within the community.

The soils underlying the community are described as being somewhat sandy with a large content of small to large boulders. Hence the name 'Stony Rapids'. The soils were deposited by glacier action at the end of the last Ice Age, and have been modified by the waters of a glacial lake about that time. Technically, the soil materials are known as ground moraine.

A number of small, extremely stony hills lie to the southeast and southwest of the community. These hills appear to be a substantial constraint to development. Also, a low muskeg area to the west of the community limits expansion in that direction.

A study of the development suitability of the land in and around Stony Rapids was completed in 1983. Entitled the Stony Rapids Area Terrain Analysis Study and Selection of Alternative Building Site Areas, by J. D. Mollard and Associates of Regina, the study identified ten areas suitable for development (see Map 7). The areas were selected on the basis of depth to water table, surface drainage, amount of boulders, depth to bedrock, topography, presence of muskeg and a number of other factors. Three hundred and seventy acres (151 ha) in ten areas were identified as being suitable for development. While some of these areas are rather remote from the community and others are on the Chicken Indian Reserve to the east, there are two promising development areas to the southeast and southwest of the community totalling about 100 acres (40 ha).

A number of soil pits were dug to a depth of two metres in the fall of 1983 in these two areas to confirm development suita-


FOND DU LAC RIVER
TO BLACK LAKE
STONY RAPIDS COMMUNITY PLANNING STUDY
SLOPE CLASSIFICATION
0-5%
5-10%
10-20%
20%+
1.0 Metre Contour Interval
SLOPE ANALYSIS
6
0 50 100 300
metres
Underwood McLellan Ltd.

0 165 330 660
metres

SOURCE: J.D. Mollard and Associates
Terrain Analysis Study, August, 1983.
Underwood McLellan Ltd.
Field Work, September, 1983.

STONY RAPIDS
COMMUNITY PLANNING
STUDY

MG	ground moraine, stony, bould ery silty sand till, well drained
MT	ground moraine over sand-stone bedrock
MP	sandstone plateau, rolling topography
ME	sandstone escarpment
MX	precambrian rocks, hilly
	swamp - organic soil, wet, poorly drained
OS	bog - organic soil, wet, poorly drained, some permafrost
	best development prospects

terrain analysis

7

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bility. Once the surface boulder layer is passed, the soil is a consistent silty texture, and appears to be well suitable for trenching, road construction and building construction.

To summarize, the main natural constraints to development are the river to the north, muskeg to the west, and several stony hills to the southeast and southwest. Also, there is some muskeg to the south of the airport. Two areas of good development potential lie adjacent to the community to the east and the southwest.

Tree cover within the community consists of fairly mature pine and spruce trees, interspersed with some birch and aspen. The forest cover which remains provides an extremely attractive setting for the community.

However, the forest outside the community was burned over by a forest fire in 1970. There is now a vigorous regeneration of the forest, but stands are generally less than three metres in height.

4.2 Current Land Use and Development

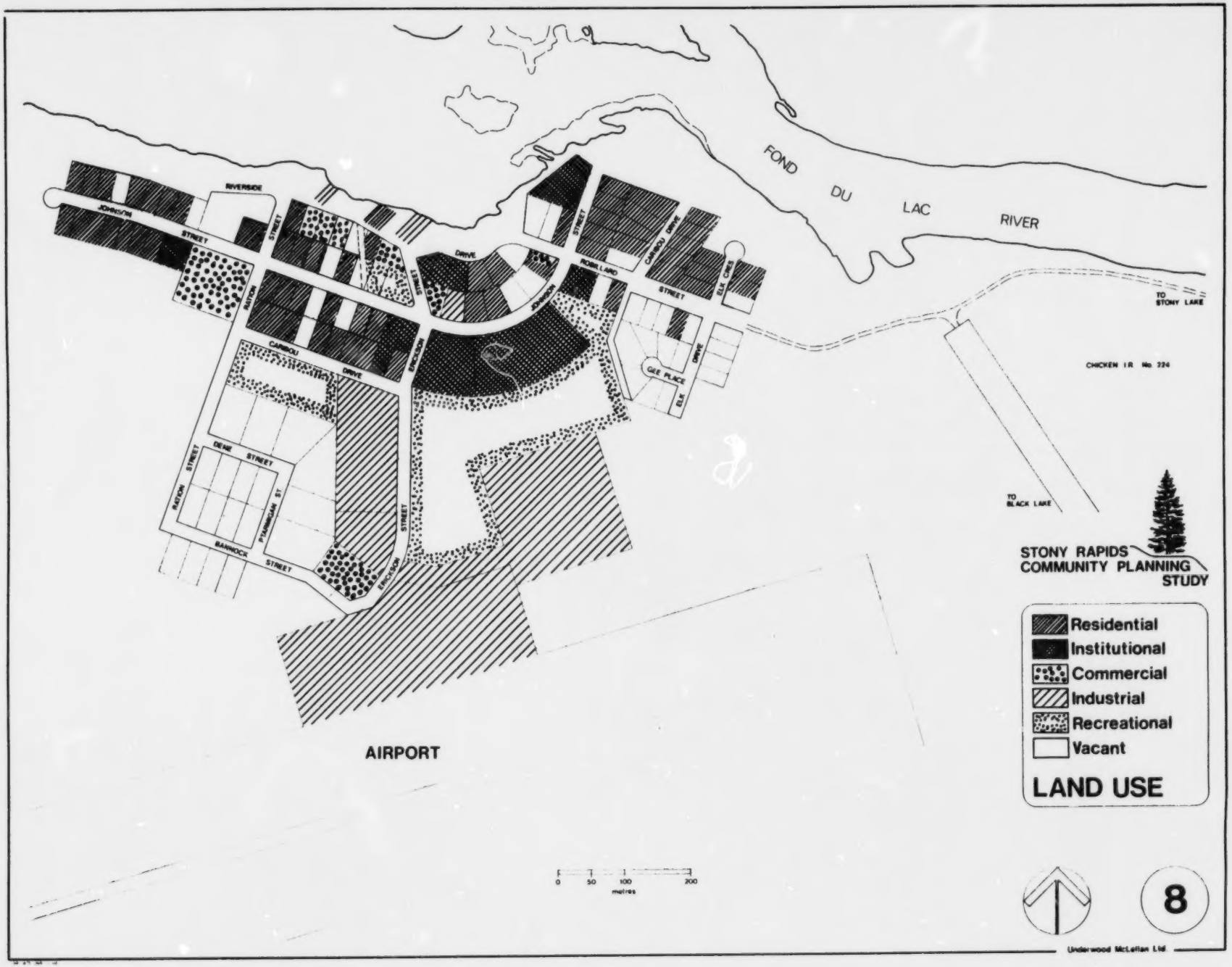
.1 General Patterns

Stony Rapids initially developed with its focus as the waterfront. The first dwellings were scattered to the east and west of the Bay store, overlooking the river.

At first houses were scattered randomly. Later when streets were surveyed, the major streets were located parallel to the river: Riverside Drive, Johnson Street and Caribou Drive. Cross streets were laid out going up the hill: Ration, Erickson and Robillard Streets. As more houses were built, they tended to be located to the east and west, overlooking the river, wherever slopes would allow.

The development of the airport in 1950 created a new north-south axis to the community. Erickson Street was extended south to the airport a distance of about a quarter of a mile. Erickson continued beyond the airport as the Black Lake road. Later a new road was built from Black Lake, to come in from the east along Robillard Street.

The waterfront and airport remain today as the focal points of the community layout (see Map 8, Land Use). Commercial and industrial uses tend to be located at either location or along the road connecting the two areas. The waterfront still has the Bay, the Gulf bulk station, several charter air line offices and a


FOND DU LAC RIVER
TO STONY LAKE
CHICKEN I.R. No. 224
TO BLACK LAKE
RIVERSIDE
JOHNSTON STREET
RAYON STREET
CARIBOU DRIVE
ERICKSON STREET
ROBILLARD STREET
ELK CRES.
GEE PLACE
DENE STREET
BANNOCK STREET
PYAMINGAN ST.
AIRPORT
0 50 100 200
metres
STONY RAPIDS COMMUNITY PLANNING STUDY
Residential
Institutional
Commercial
Industrial
Recreational
Vacant
LAND USE
8
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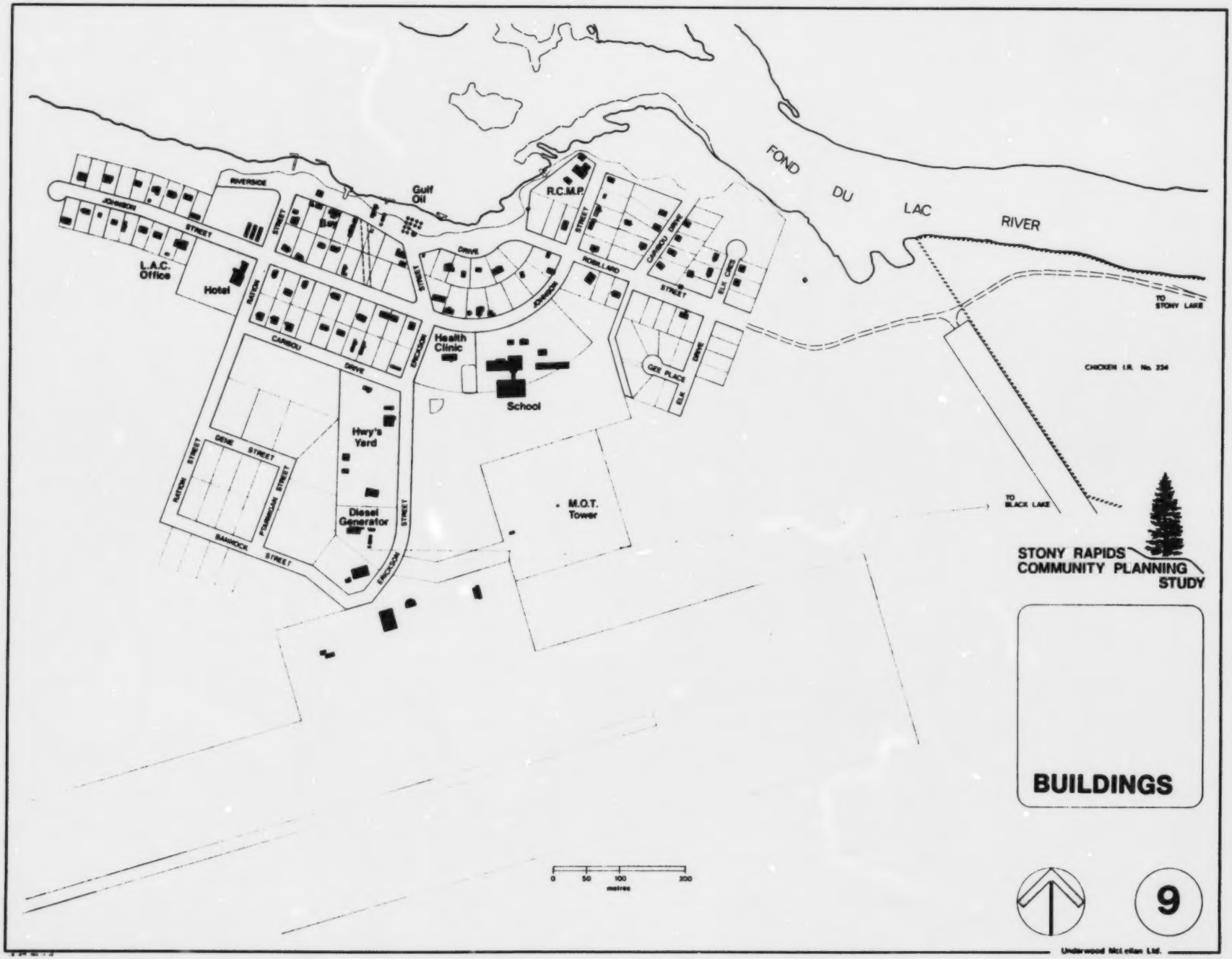

STONY RAPIDS COMMUNITY PLANNING STUDY

BUILDINGS

9

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craft shop, whose locations have been influenced by access to water transport, the docks and the float plane anchorage. The Roman Catholic Church and Parish Hall is also located along Riverside Drive.

Because space is limited along the waterfront, non-residential uses have tended to locate along Erickson Street towards the airport as well as along Johnson Street, the main east-west street. The corner of Johnson and Erickson is important in that the Resources office, the Health Clinic, the old Bay warehouse, and Yooya's Variety Shop. The school, the largest building in the community is located just to the east of the intersection, while its playing fields border Erickson Street.

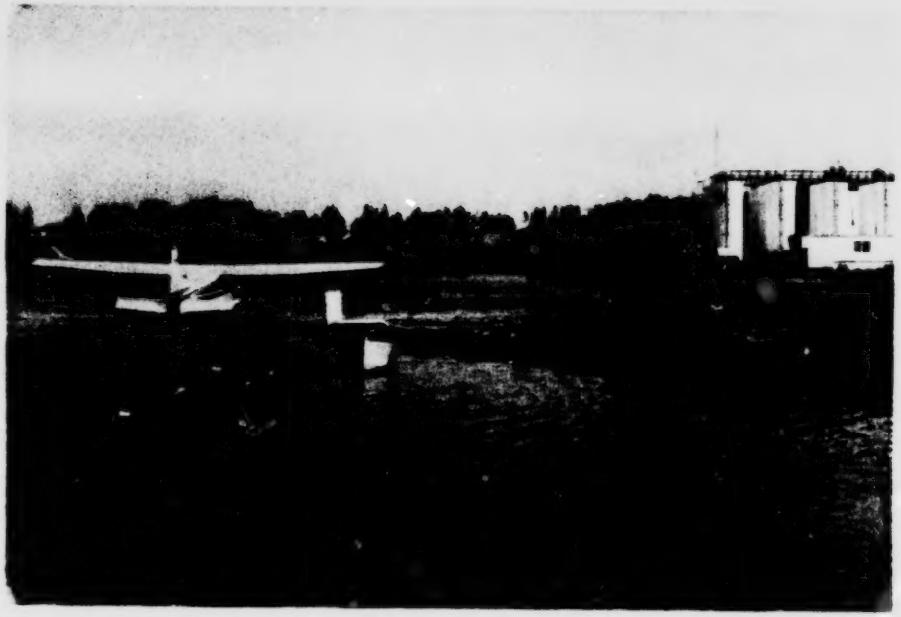
South of Caribou Drive, Erickson Street takes on a more industrial character. The Highways and Resources yard, and the North-Sask Electric generators occupy large sites on the west side of the street, while the airport site itself has the offices and hangars of Nipawin Air Services, Snowbird Aviation and Aero North. The Norcanair terminal is also located here. Recently Hilltop Services has also located on a titled lot across Erickson Street from the airport.

Several other non-residential uses are scattered throughout the community. The R.C.M.P. offices and residences occupy a point of land at the northeast end of Johnson Street. A community hall is located at the intersection of Robillard and Johnson. Athabasca Industries has a shop across from the school. The Stony Rapids Hotel overlooks the river at its location at Johnson and Ration, while a pool room is located further west on Johnson Street. Also a structure containing the community office, fire hall and post office are located west along Johnson Street.

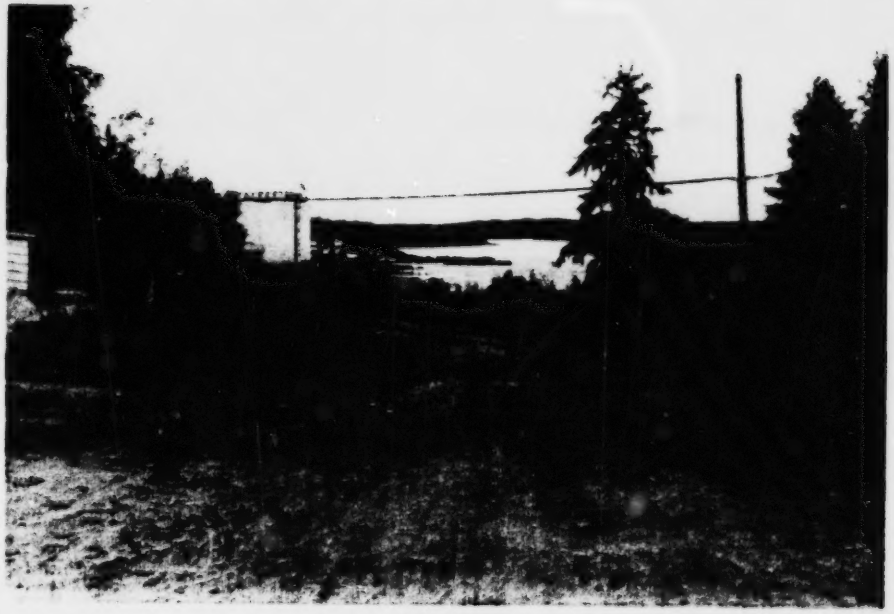
As in many northern communities, a number of businesses have started in the residence, basement or back yard of the business person. In Stony Rapids there have been several examples of this, including gasoline sales, taxi cab and trucking, and others. As lots have not really been designated for specific uses, there is a gray area as to which businesses are appropriately located and which are not.

Aerial view of Stony Rapids looking west.

The waterfront as seen from Robillard Street and Caribou Drive.



Waterfront activity, looking east.



Looking west along Riverside Drive to the waterfront.

.2 Allocation of Land Use

The total land area within the survey portion of the community is 95.6 acres (38.7 ha). The area within each type of land use is shown in Table 2 below.

TABLE 2: LAND USE AREAS

Type of Use	Area ac	Area ha	Percentage of Total
Residential	32.9	13.3	34.4
Commercial	3.1	1.3	3.2
Industrial	19.2	7.8	20.0
Public Reserves	25.3	10.2	26.5
Streets	15.1	6.1	15.8
Totals	95.6	38.7	99.9

A few words of explanation are in order. The industrial area includes a large vacant area which has been subdivided in 1983. Industrial uses such as the Gulf Bulk station are located partly on a road allowance and partly out onto the river. Public Reserves have the school, residences and the community hall located on them.

The figures show that residential areas occupy the greatest area of subdivided land. Public Reserve is also a major user of space.

The airport itself occupies considerably more space than the community itself. The surveyed parcel which includes the air strip and the associated hangars and the terminal, measures approximately 1,000 by 7,000 feet (300 m by 2150 m) and has an area of about 175 acres (71 ha.) nearly twice the size of the community.

The parcel on which the Non-Directional Beacon is located, north of the airport, occupies an additional 9.5 acres (3.5 ha.).

.3 Land Surveys

The first legal survey, No. CK 361, was registered in November of 1949. It included all areas north of Caribou Drive and its easterly extension across the current school grounds. This survey appears to have accommodated the community until 1975 when three surveys defined Johnson Street west and adjacent lots, the navigational beacon parcel, and the Highways yard.

Further surveys opened Caribou Drive north in 1978, Elk Crescent in 1981, the R4 Public Reserve parcel in 1981, Gee Place in 1982 and the southwest industrial area and the R6 Public Reserve parcel in 1983.

The various plan numbers and dates are shown on Map 10.

In connection with the surveying of lots, a number of buildings were located before surveys took place. In some cases, buildings crowd or actually cross lot lines. If such encroachments are to be avoided in the future, it is important that no building take place until lots have been surveyed. Also, it is important that the lot corners and lines be clearly shown so they are readily identifiable. Lot and block numbers are shown on Map 11.

.4 Public Reserves

Public Reserves are established to ensure that adequate land is set aside for public use and open space. The Planning and Development Act requires that ten percent of the land area of a new residential subdivision and five percent of a non-residential subdivision be dedicated as Public Reserve. The title of the land is held by the Department of Urban Affairs for community use and leases for schools.

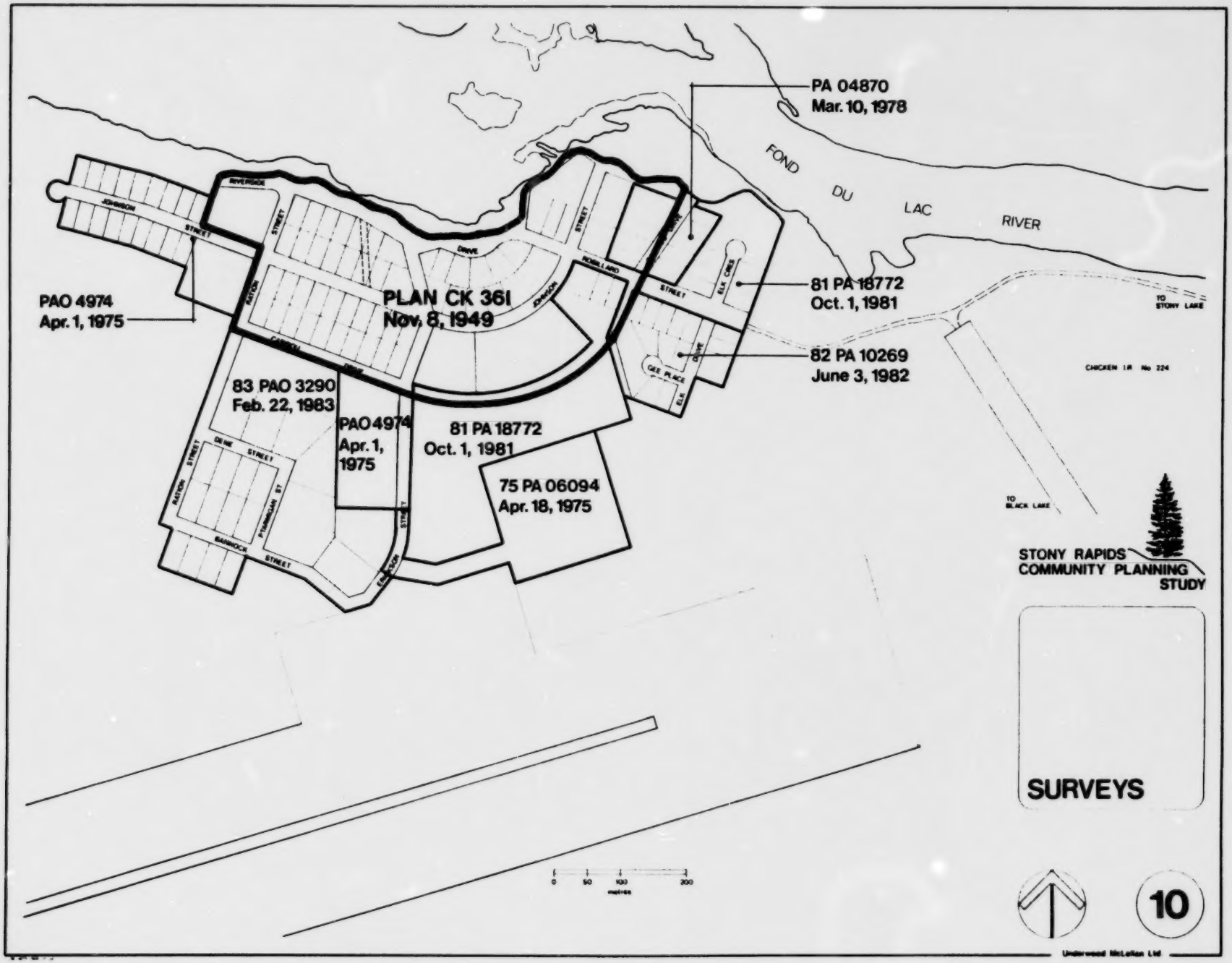
The uses to which Public Reserve may be put include parks, buffer strips, public recreation or natural area, schools, public buildings or facilities or float plane bases.

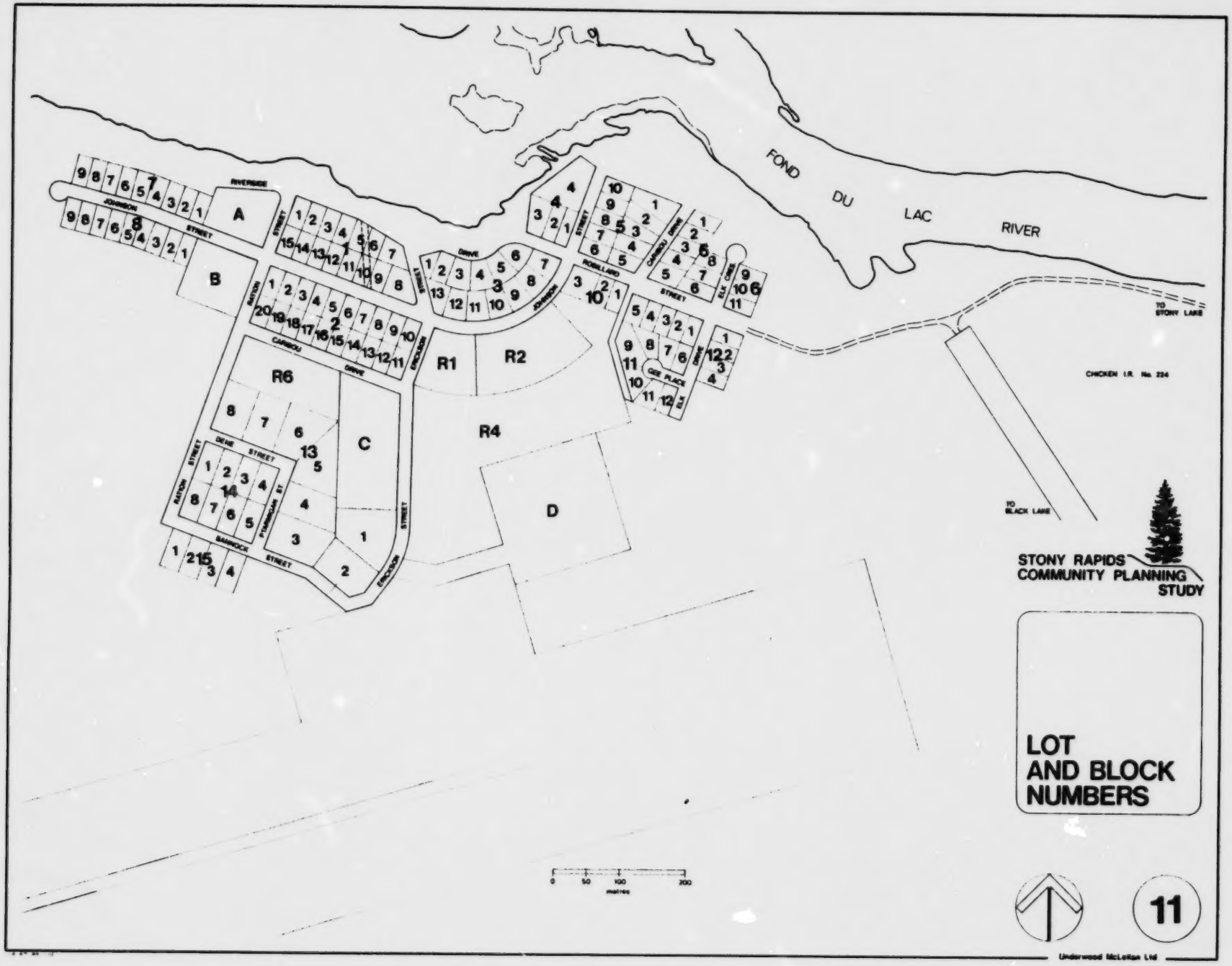
There are five Public Reserve parcels in Stony Rapids, occupying a total area of 25.3 acres (10.2 ha). These are located as shown on Map 12. The parcels are listed below:

R1	Clinic	1.9 ac	(.8 ha)
R2	School, Hall Teacherages	3.7 ac	(1.5 ha)
R4	School grounds	14.0 ac	(5.7 ha)
R5	Elk Crescent (shoreline)	2.7 ac	(1.1 ha)
R6	Caribou Drive	3.0 ac	(1.2 ha)
	Total	25.3 ac	(10.2 ha)

This amount of Public Reserve is over 26 percent of the total subdivided land and is thus much in excess of the basic requirement, which would be 9.6 acres.

Either there is sufficient Public Reserve to provide the requirements for a tripling of the land area of the community, or, alternately, some of the Public Reserve could be cancelled and used for other uses for which there is a short supply of land.


PA 04870
Mar. 10, 1978
FOND DU LAC RIVER
81 PA 18772
Oct. 1, 1981
82 PA 10269
June 3, 1982
PAO 4974
Apr. 1, 1975
PLAN CK 361
Nov. 8, 1949
83 PAO 3290
Feb. 22, 1983
PAO 4974
Apr. 1, 1975
81 PA 18772
Oct. 1, 1981
75 PA 06094
Apr. 18, 1975
JOHNSON STREET
RIVERSIDE DRIVE
EASTON STREET
CAMERON STREET
ROBILLARD STREET
ELK CRES
GEE PLACE
ELK DRIVE
OLIVE STREET
PEMBROKE ST
BANNOCK STREET
TO STONY LAKE
TO BLACK LAKE
CHICKEN I.R. No 224
0 50 100 200
metres
STONY RAPIDS
COMMUNITY PLANNING
STUDY
SURVEYS
10
Underwood McLellan Ltd


FOND DU LAC RIVER
A
B
C
D
R1
R2
R4
R6
TO STONY LAKE
TO BLACK LAKE
CHICKEN I.R. No. 234
STONY RAPIDS COMMUNITY PLANNING STUDY
LOT AND BLOCK NUMBERS
11
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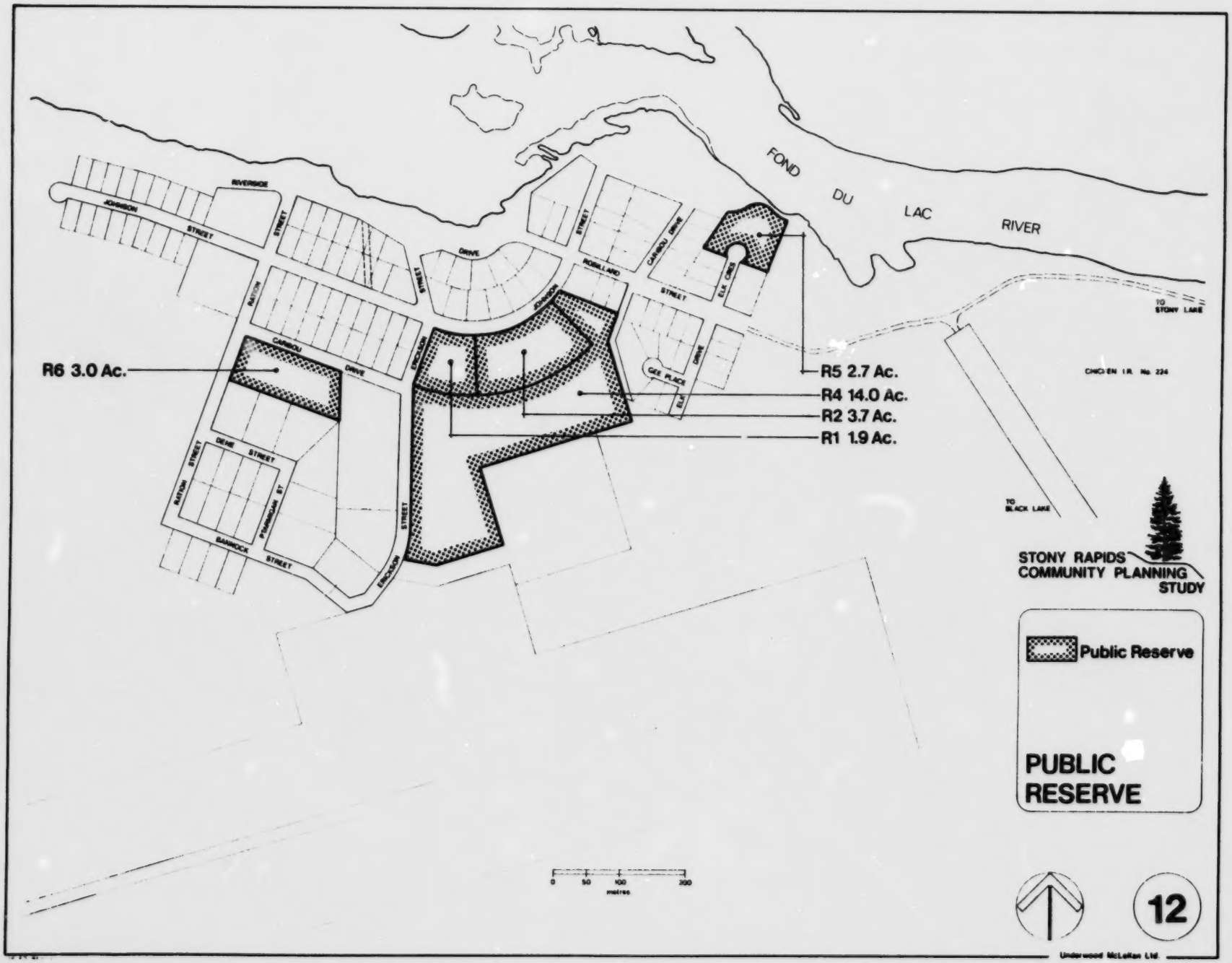
FOND DU LAC RIVER
R6 3.0 Ac.
R5 2.7 Ac.
R4 14.0 Ac.
R2 3.7 Ac.
R1 1.9 Ac.
TO STONY LAKE
TO BLACK LAKE
CHICKEN I.R. No. 224
STONY RAPIDS COMMUNITY PLANNING STUDY
Public Reserve
PUBLIC RESERVE
0 50 100 200
metres
12
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.5 Land Ownership

Within the surveyed land there is a variety of land ownership.

When land is surveyed into lots, it can remain as unpatented Crown land if no title is created. As such it can be leased through the Land Use Branch of the Department of Parks and Renewable Resources.

Alternately, a title can be raised to allow for a change of ownership. Ownership may rest with some Crown agency, such as the Department of Highways, or a Crown Corporation such as Sask Tel or North Sask Electric. Or, ownership may be transferred to a private individual or corporation.

Generally, the price at which land is sold to a private body is determined by the Department of Urban Affairs, in consultation with the local municipal council.

Other types of land ownership include Public Reserves and dedicated streets and roads. Public Reserves are held by the Minister of Urban Affairs. Dedicated streets and roads are vested in the Crown. They can be closed by the Minister of Highways or by a replot under the Planning and Development Act.

To summarize, there are the following types of land disposition in Stony Rapids:

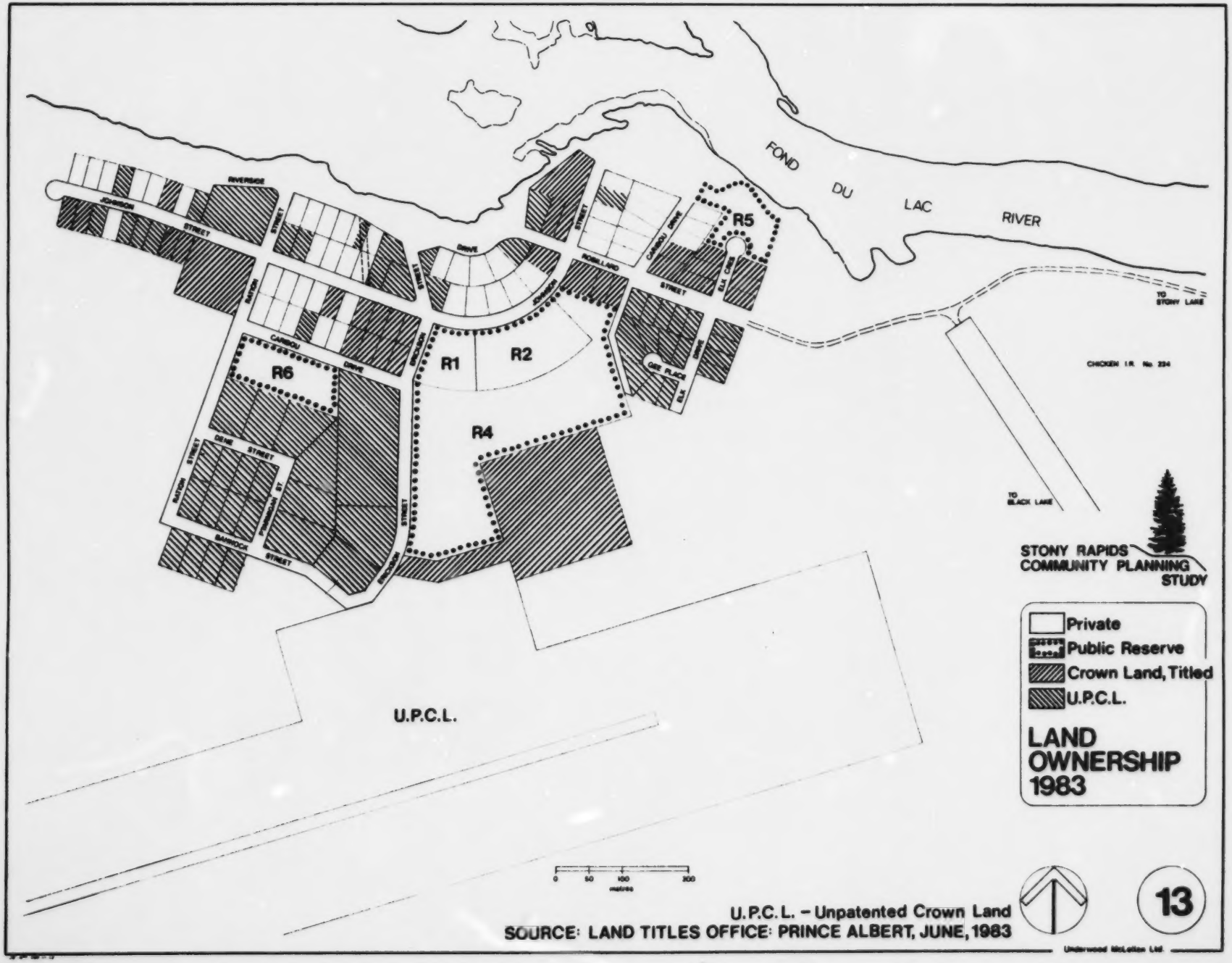
Unpatented Crown Lots - without lease
- with lease
Titled Crown Lots
Titled Private Lots
Public Reserve
Dedicated Street or Road

The nature of ownership of land in Stony Rapids is shown on Map 13. There are still a number of lots of unpatented Crown land with or without leases, which may have development potential.

.6 Housing

Ownership

There is a total of sixty-nine houses in Stony Rapids, according to an overview survey done in December, 1983. The housing stock can be divided into three categories according to ownership: privately owned houses, government or business staff housing, and housing constructed under the Rural and Native housing program, known more commonly as 'Section 40' housing. The 'Section 40' denotes the portion of the National Housing Act which outlines the characteristics of the program.


FOND DU LAC RIVER
R1
R2
R4
R5
R6
U.P.C.L.
TO STONY LAKE
TO BLACK LAKE
CHICKEN I.R. No. 224
STONY RAPIDS COMMUNITY PLANNING STUDY
Private
Public Reserve
Crown Land, Titled
U.P.C.L.
LAND OWNERSHIP 1983
0 50 100 200
metres
U.P.C.L. – Unpatented Crown Land
SOURCE: LAND TITLES OFFICE: PRINCE ALBERT, JUNE, 1983
13
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A total of thirty-one units have been constructed under the 'Section 40' program since 1972. The number of units constructed per year is as follows:

1972	5
1974	9
1975	3
1977	3
1978	2
1979	5
1980	4
Total	31

No houses have been built by DNS Northern Housing, or its successor, Saskatchewan Housing Corporation since 1980.

In January of 1984, twenty-eight units were occupied, two were vacant, while one had been destroyed by fire. Twenty-six of the houses were judged by the Saskatchewan Housing Corporation to be in good condition.

All Section 40 houses are single detached houses, either bungalows or bi-level houses.

Twenty-one housing units can be classified as government or business staff housing. While many of these are conventional single detached dwellings, six units are mobile homes and a four unit apartment block provide housing for teachers.

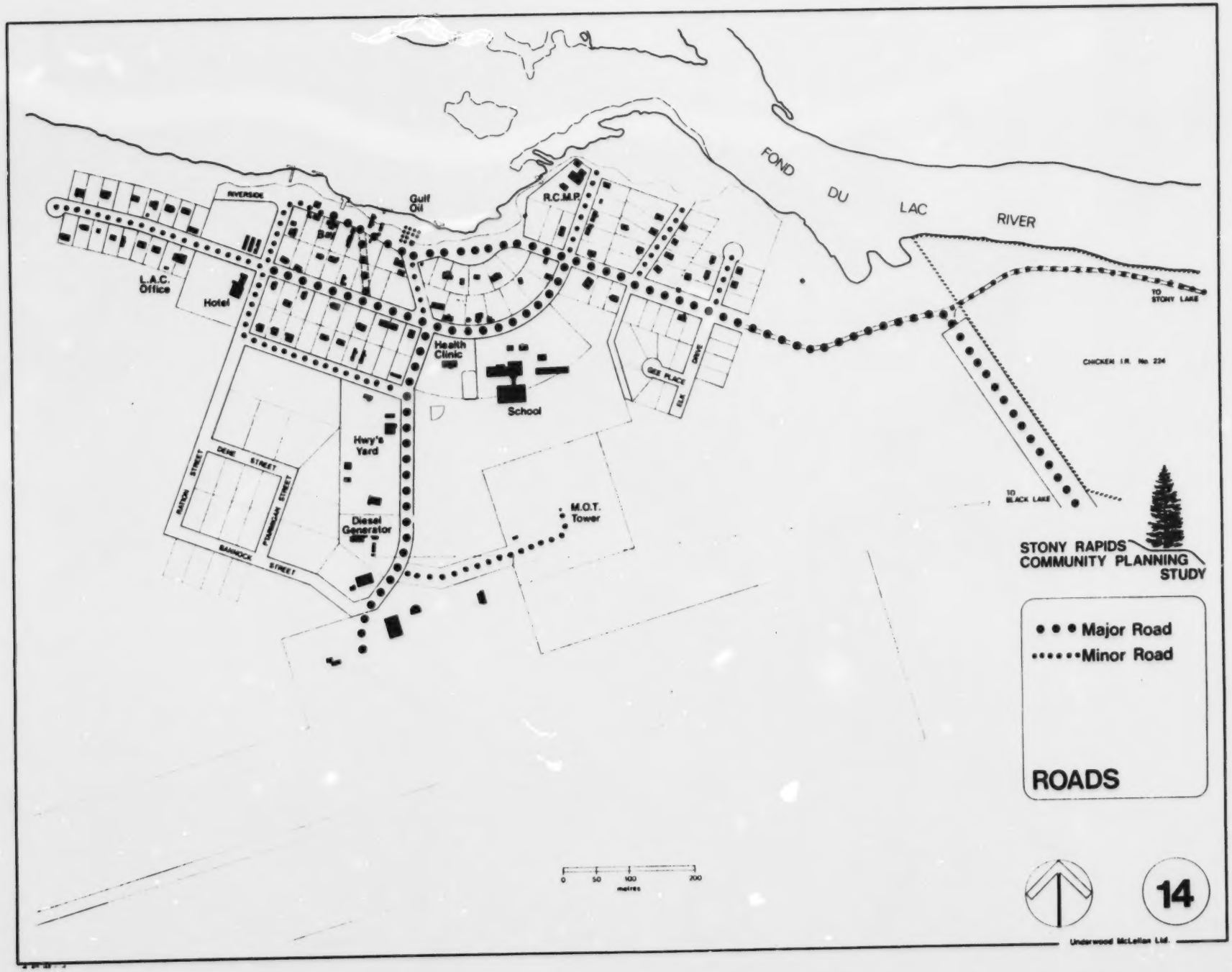
The remaining eighteen housing units are privately owned. These are of variable quality, but are generally in good condition. There thus exists a limited market in privately owned housing.

The housing survey included all houses which are located on surveyed lots. In the summer of 1984, two cabins were constructed on unsurveyed land just to the east of Stony Rapids. While this represents commendable initiative on the part of the homeowners, it may create problems in the future as these areas are brought into the subdivided and surveyed portion of the townsite.

.7 Roads and Circulation

All roads in Stony Rapids are gravel surface with shallow ditches for surface drainage. Road maintenance is provided through a contract with the Department of Highways.

There is no established system of major routes and minor routes. However, the following streets can be considered to carry more traffic and heavier traffic:


FOND DU LAC RIVER
RIVERSIDE
Gulf Oil
Bar
R.C.M.P.
L.A.C. Office
Hotel
Health Clinic
School
GEE PLACE
DRIVE
TO STONY LAKE
CHICKEN I.R. No. 224
Hwy's Yard
DENE STREET
BATON STREET
FINNIGAN STREET
BANNOCK STREET
Diesel Generator
M.O.T. Tower
TO BLACK LAKE
STONY RAPIDS COMMUNITY PLANNING STUDY
Major Road
Minor Road
ROADS
0 50 100 200
metres
14
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i) Robillard Street and Riverside Drive, which carries heavy traffic from dock and bulk oil station to Black Lake.

ii) Erickson Street, which is the main link between the waterfront and the airport.

iii) Johnson Street, between Erickson Street and Robillard, which is the main link within the community for traffic between Black Lake and the airport.

Parts of Robillard and Johnson pass through or are adjacent to residential areas so that heavy traffic may create hazards to pedestrians.

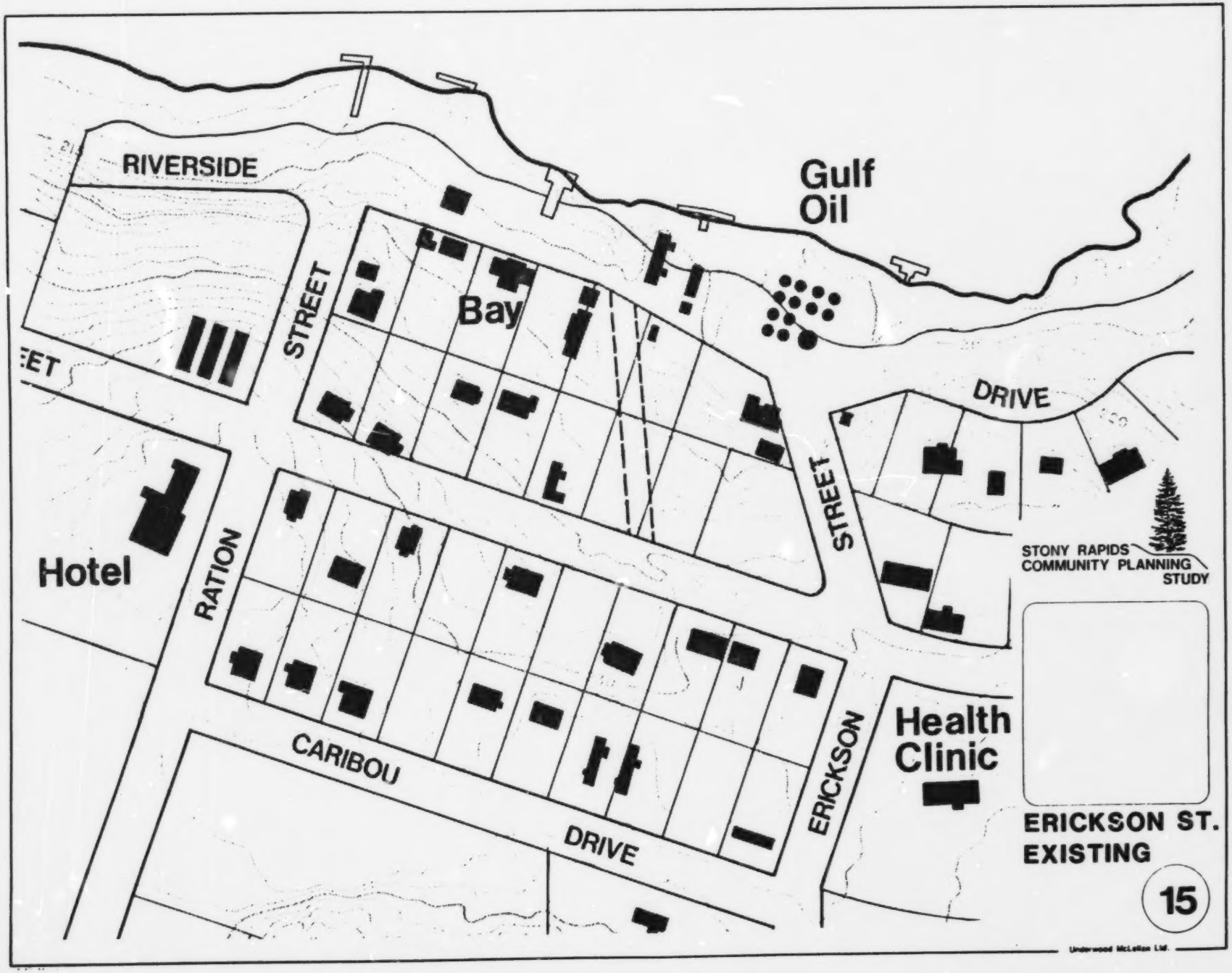
With respect to the road link between the waterfront and the airport, an unsurveyed road runs across private property between Johnson and the Bay. This road is not as steep as the lower portion of Erickson Street, north of Johnson. The maximum slope is fifteen percent on Erickson Street, as opposed to ten percent on the unsurveyed street. Moreover, the Gulf Oil bulk tanks are directly at the foot of Erickson and, despite being enclosed by a steel link fence and earth berm, there are concerns that a large truck could get out of control on a slippery slope and damage the tanks.

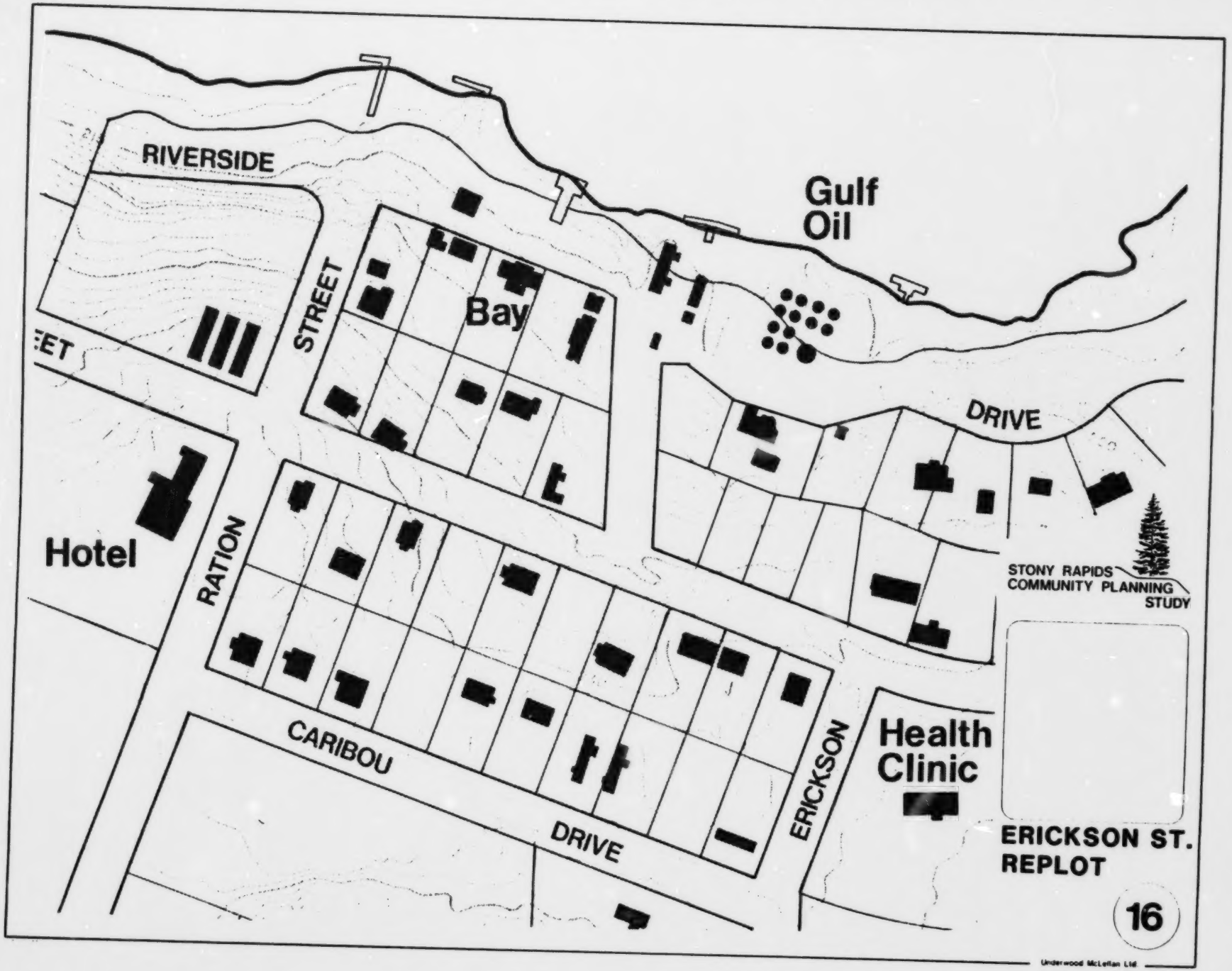
As a result, a request has come forward to legally and physically close the lower end of Erickson and open the currently unsurveyed road allowance. This would be accomplished by way of a replotting procedure under the Planning and Development Act. The closed portion of Erickson Street could then be offered to adjacent landowners or could create two new lots (Maps 15 & 16).

The roads not only accommodate motor vehicles, they also serve as the main pedestrian corridors and carry snowmobile traffic in winter. There is also a network of pedestrian trails crossing unused lands between homes and the school and the Bay.

.8 Parks, Recreational Facilities and Open Space

There are three main open space areas used for recreation. The largest is the school grounds, which includes an open air skating rink, two softball diamonds, and a soccer field. To the east of the school is the community hall, formerly a curling rink. The total area available for playing fields, outside of the school itself is about five acres. While this may be adequate now, there is the question of space for additional playing fields or facilities such as an arena.


RIVERSIDE
Gulf
Oil
Bay
STREET
DRIVE
STREET
Hotel
RATION
STONY RAPIDS
COMMUNITY PLANNING
STUDY
Health
Clinic
CARIBOU
DRIVE
ERICKSON
ERICKSON ST.
EXISTING
15
Underwood McLellan Ltd.


RIVERSIDE
Gulf
Oil
STREET
Bay
DRIVE
Hotel
RATION
STONY RAPIDS
COMMUNITY PLANNING
STUDY
CARIBOU
DRIVE
ERICKSON
Health
Clinic
ERICKSON ST.
REPLOT
16
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Johnson Street, looking
west from Erickson Street.

Erickson Street looking
north from Johnson Street.

The second area of recreational land is the playground at the northwest corner of Johnson and Erickson. This lot is unpatented Crown land.

Finally, the waterfront, east of the Gulf tanks is used in summer as a beach. There are concerns with the use of this area because the beach is unimproved and because of the danger or undercurrents in the River.

.9 A Summary of Problems of Existing Land Use and Circulation

a) lack of well defined commercial area
b) lack of readily available commercial lots
c) buildings not being located on surveyed lots
d) insufficient land for playing fields or arena
e) steep slopes on lower Erickson Street
f) heavy traffic through or adjacent to some residential areas
g) joint use of streets by vehicles, pedestrians and snowmobiles
h) lack of industrial land with road frontage
i) underutilized parcels of land in key locations
j) lack of safe and developed beach areas

4.3 Physical Services

.1 Water Supply and Waste Disposal

Stony Rapids does not have a centralized water distribution and sewage collection and disposal system. The school and health clinic have a piped system from a well and pumping system on Riverside Drive near the lake.

Other residences and buildings obtain water through a trucked system and in-house cisterns. The costs of haulage are high and impose a restraint on the amount of water consumed. The high cost of water is a problem for businesses such as the hotel, that of necessity consume large quantities of water.

Liquid waste collection in the community is by pump-out tank and a "honey wagon" with ultimate disposal being in a temporary lagoon off the Black Lake road.

In September, 1983, the provincial government commissioned Underwood McLellan to prepare working drawings for the construction of a centralized sewer and water system, based on a preliminary feasibility study completed in 1980. The system would include a water intake in the Fond du

Lac River, water treatment plant, distribution mains, sewage collection lines, sewage pumping station, forcemains and lagoon for treatment and disposal. The system as currently envisaged will be described in greater detail in Part II, Section 4.2.

.2 Solid Waste Disposal

Solid waste is collected once a week and taken to the community disposal site located several miles south off the Black Lake road. In the spring of 1984, the dump was poorly maintained, with garbage strewn everywhere. There also are concerns that the site might be polluting surface and ground water draining, ultimately into Stony Lake and the Fond du Lac River. A managed sanitary landfill site and program are essential to providing a satisfactory service.

.3 Surface Drainage

As indicated earlier, surface drainage within the community is by shallow ditch alongside the roads. Because much of the community is built on considerable slopes, drainage becomes a problem in times of heavy rain and snow melt.

Erosion produces rutting and gulleys both in the ditches and on the roadway surface during times of excessive runoff. This is especially evident along Erickson and near the intersection of Robillard and Johnson.

Another problem occurs by runoff crossing private properties. The worst case is water flowing north from the R6 Public Reserve through a small culvert under Johnson and north across through a residential area, ultimately to the River. Part of the solution to this problem is to divert water from the R6 Reserve, westward via a ditch to be constructed south of the hotel and community building. This might also facilitate development of the R6 Reserve if so desired.

Another area of ponding is near the intersection of Johnson and Robillard.

What is needed is to approach the problem of surface drainage in a comprehensive way, to ensure culverts are adequate, to divert water where necessary, to improve ditches and generally to solve surface water drainage problems.

It is understood that the design of the sewer and water system being done by Underwood McLellan currently will incorporate the roads and surface drainage improvements. Improvements would then be made at the time of construction of the sewer and water system.

.4 Water Transport

The government dock on the waterfront is the major unloading point for the barges which supply bulk goods to Stony Rapids and Black Lake. Two problems encountered with use of the dock are the variation in water levels and the limited space on shore for parking of trucks being loaded and unloaded. There have been suggestions that the dock be increased in size to facilitate more efficient loading and unloading.

The waterfront also serves as a float plane base for small aircraft.

.5 Air Transport

The airport is managed by the Government of Saskatchewan through the Department of Highways. The federal Ministry of Transport establishes the standards which regulate airport operations.

The air strip has a gravel surface and is 4400 feet (1340 m) in length. The largest planes currently using the runway are Norcanair's Fokker F-27 and Convair 440 aircraft. A runway extension to 5,000 feet (1525 m) would be considered desirable by aviation firms to accommodate larger aircraft which may be introduced.

Service can be temporarily disrupted during the spring thaw because of soft runway conditions.

The airport is lighted and a non-directional beacon (NDB) located on Ministry of Transport property north of the airport is provided as a navigational aid. This is an uncontrolled airport and landings and take-offs are done under visual flight regulations.

Scheduled passenger air service to La Ronge, Prince Albert, Saskatoon and southern points is provided by Norcanair, using the F-27 aircraft. Frequency of air service varies seasonally. The winter of 1983-84 saw three weekly flights to and from La Ronge and the south. This was increased to six flights a week in the summer of 1984, while the fall and winter schedule of 1984 saw a decrease in service to four weekly flights.

Scheduled service is also provided by Nipawin Air by Twin Otter to Fond du Lac and Uranium City on the basis of three flights per week.

The Northern Development Strategy Workshop held in Black Lake in April, 1984 made a number of recommendations for the Stony Rapids Airport based both on the needs of the communities it services and on the needs of the aviation industry:

i) increase budgets for strip maintenance,
ii) emplace weather reporting, very high frequency omnidirectional range (VOR), and distance measurement (DME) equipment at Stony Rapids, on the basis of need by Medivac and scheduled passenger service,
iii) establish a jet fuel supply depot at Stony Rapids,
iv) construct a passenger waiting room,
v) increase runway size to 5,000 feet by 100 feet with a sealed top,
vi) improve co-ordination of scheduling between north-south and east-west flights,
vii) provide overnight accommodation at Stony Rapids.

.6 Electricity

Electrical power in Stony Rapids is supplied by the North Sask Electric diesel generators located on Erickson Street near the Airport. Two 600 kilowatt generators and two 250 kilowatt generators supply power to Stony Rapids and Black Lake. Black Lake was linked to the system in 1982.

Fuel for the diesel plant is brought in by barge and stored in tanks on site.

Electrical rates are divided into three types of consumer: residential, commercial, and institutional. Resi-

dential rates are low if use is low - about 3.46 cents per kilowatt hour (KWH) for the first 315 KWH, in addition to a basic charge of $4.05. Beyond that point, however, the rates rise sharply to 16.5 cents for each KWH thereafter. Generally, residential customers are not permitted to have any large appliances, electric heat or other potentially heavy electric loads.

The average residential consumption was 572.5 KWH per month in 1981. Peak consumption in the winter months would be much higher. As a result, considerable consumption is charged at the higher rate of 16.5 cents/KWH. The cost of electricity is high: monthly power bills as high as $400 per month have been reported for the coldest months.

Clearly, a reduction in power costs would be a major benefit to the residents of the community.

There have been ongoing discussions between all concerned government and industry agencies regarding the feasibility of extending a hydro line from the three hydro electric power plants near Uranium City to Fond du Lac, Stony Rapids, Black Lake and Rabbit Lake. The power from these plants is currently surplus due to the closure of the Eldorado Mine.

While no decision has yet been made, such a project should provide the region with a lower cost form of electrical power. Conceivably, it could allow the conversion to electrical heating, thus replacing expensive, imported fuel oil as a heat source.

If the hydro line does not go ahead, diesel generating capacity at Stony Rapids is likely to be increased to provide a source to Fond du Lac, where expansion of the diesel plant is unfeasible due to site limitations. This would require the construction of a hydro transmission line from Stony to Fond du Lac.

In either event, it is possible that the site of the current diesel plant would be redundant. Expansion would require a new site, while the hydro line from Uranium City would eliminate the need for a diesel plant. This site would be an excellent one for redevelopment for commercial uses due to its location on Erickson Street near the airport.

Servicing of electrical customers has been done from Uranium City in the past. If Uranium City closes entirely, this would probably be done from La Ronge.

5.0 STONY RAPIDS: SOCIAL PROFILE

5.1 Population

.1 Ethnic Groupings

About three-quarters of the people are non-status Indians or Metis, primarily of Chipewyan descent. There are also a few Metis of Cree descent and a few Chipewyan treaty Indians. All are descendants of people who have occupied the surrounding lands for hundreds and thousands of years.

Canadians of European descent have been coming to the Stony Rapids region since the 1920's, first as trappers, later as business people, government workers, or teachers. They now comprise about one-quarter of the population of Stony Rapids. Many are only in the community for a few years or less, and there is a bit of distinction locally between the permanent residents and the so-called "transients". However, there are a few "southerners" who have stayed for a length of time and put down roots.

.2 Population Trends

The most consistent year to year population figures for Stony Rapids are those supplied by the Saskatchewan Hospital Services Plan. These are based on administrative records rather than on an annual or once every five years "head count". The only possibility of missing people actually living in Stony Rapids, is that Treaty Indians would be included in the populations of the Band of which they are a member.

The population of Stony Rapids has grown at a somewhat uneven rate during the past fifteen years, as shown in Table 3 (next page). Annual growth rates vary considerably from year to year. However, ten of the past fifteen years saw an increase in population, and the fiteen year increase has been from 173 to 285. This works out to an increase of 112 people or an increase of sixty-five percent.

Looking at the last five year population growth, the percentage increase has been 26.6 percent, or an average annual increase of 4.9 percent. This is quite a high rate of growth by any standard. The excess of births over deaths (or natural increase) is likely to account for much of this increase, perhaps up to 3.5 percent. However, there has been some net in-migration (more people moving into the community than moving out).

Before 1979, there was also rapid population gain, but between 1978 and 1979 there was a considerable drop in the population of Stony Rapids. This was probably due to a drop in mineral exploration in the surrounding area and consequently fewer workers staying in the community.

TABLE 3: STONY RAPIDS POPULATION

Year	Population	Change	Percentage Change
1969	175	+ 2	+ 1.2
1970	180	+ 5	+ 2.9
1971	178	- 2	- 1.1
1972	164	-14	- 7.9
1973	175	+11	+ 6.7
1974	191	+16	+ 9.1
1975	178	-13	- 6.8
1976	193	+15	+ 8.4
1977	203	+10	+ 5.2
1978	242	+39	+19.2
1979	225	-17	- 7.6
1980	223	- 2	- 3.8
1981	240	+17	+ 7.6
1982	249	+ 9	+ 3.8
1983	266	+17	+ 6.8
1984	285	+19	+ 7.1
Total Change, 1969-1984		+110	+62.8
Population Change, 1969-1974		+ 16	+ 9.1
Population Change, 1974-1979		+ 34	+15.1
Population Change, 1979-1984		+ 60	+26.7

Source: S.H.S.P.

The continued strong population growth since mineral exploration and production dropped off in the early 1980's is a positive sign. This trend probably has been aided by the decline of Uranium City and the relocation of some people to Stony Rapids.

.3 Age Distribution

A look at the age distribution of a community is most important in order to understand present and future needs for educational facilities, recreational facilities and programs, employment and senior citizens' programs and facilities. A generalized breakdown by four age groups for the years 1974, 1979 and 1984 is shown on Table 4 below.

TABLE 4: AGE DISTRIBUTION

Year	0-14		15-44		45-64		over 65	
	No.	%	No.	%	No.	%	No.	%
1974	89	46.6	79	41.4	16	8.4	7	3.7
1979	87	38.7	113	50.2	12	5.3	13	5.8
1984	111	38.9	144	50.5	18	6.3	12	4.2
Ten Year Change	22	24.7	65	82.2	2	5.1	5	71.4

Source: S.H.S.P.

A few observations should be made about these figures.

1. The percentage of children aged less than fifteen is about average for native or northern populations, but is much higher than average than the province as a whole: 38.9 percent for Stony Rapids as compared to 24.2 percent for the entire province.

2. The 15 to 44 age group is both by far the largest age group and the fastest growing age group. The percentage of population in this age group is a little higher than the provincial

average. The size of the age group probably reflects the baby boom working its way through the age cycle and the age of people who have come to Stony Rapids for jobs in government, business or teaching.

.3 The numbers and percentage of people in the over 44 age group is much lower than for the province as a whole: 10.0 percent as opposed to 29.2 percent for the entire province. However this proportion is in line with that for the Indian population of Saskatchewan.

In summary, the population of Stony Rapids is young and growing at a strong rate.

5.2 Community and Social Services

.1 Education

The Stony Rapids School provides education from Kindergarten to Grade 10.

The school is administered by the Northern Lights School Division with offices in Prince Albert. The school itself is a modern, well-equipped facility with adequate space for increased enrolments. It has industrial arts facilities, an auditorium/gymnasium, library, and six classrooms. The staff includes the principal, five teachers, and the custodial staff.

Enrolments have been increasing, up til 1983, as shown in Table 5. However, there has been a slight decline since then.

TABLE 5: ENROLMENTS

STONY RAPIDS SCHOOL

	1979	1980	1981	1982	1983	1984
Kindergarten - Division 1	31	34	35	35	40	
Division 2	19	23	17	23	21	
Division 3	13	18	23	19	31	
Division 4	4	3	3	5	3	
Other				2		
Total	67	78	78	84	95	90

Source: Northern Lights School Division, No. 113, Prince Albert.

Students who wish to complete their high school education must go outside the community. Currently several students attend high school at La Ronge.

The responsibility for continuing or adult education lies with the West Side Community College, based in Beauval. The WSCC has a regional representative from Stony Rapids. A small office is planned for Stony Rapids.

In 1984-85, the school was being considered for use to provide pre-employment technical training in mining for residents of the region. This project is jointly sponsored by Eldor Mines, the WSCC, Canada Employment and Immigration, and Indian and Northern Affairs Canada.

.2 Health and Medical Services

The basic level of health care is provided by a Public Health Nurse stationed in the old outpost hospital. A variety of services are provided including referrals, inoculations, neo and post-natal health care and preventive health services.

The doctor from Uranium City pays weekly visits to Stony Rapids. The nearest hospital is at Uranium City, some hundred miles to the west by air. Emergency deliveries and some surgeries require patients to attend a southern hospital: La Ronge, Prince Albert or Saskatoon.

The future of medical services in the Athabasca Region is tied to the future of the Uranium City Hospital, and whether adequate medical staff can be kept there. If the Uranium City Hospital is closed, the options would be to provide a similar service out of Stony Rapids or a southern location such as La Ronge. A Stony Rapids location would have a number of benefits locally. This would almost certainly require the installation of full sewer and water services, as well as of the hospital and associated residences. At the same time, this option would encounter the problems of retaining professional and technical staff which most northern hospitals face.

La Ronge or other southern location would be less favourable to medical services in the region and the community.

.3 Recreation

During the past years, Stony Rapids has developed some basic recreation facilities and started to develop organized recreational programs.

Facilities

The community's facilities include the following:

1. Community Hall: The former curling rink has been renovated as a community hall. It is used for meetings, dances, and other community events.

2. Skating Rink: An outdoor skating rink is located near the school. It is flooded and maintained by the community.

3. Playing Fields: Two ball diamonds and a soccer pitch is located on the school Public Reserve parcel.

4. Playground: A childrens' playground has been developed on the parcel of unpatented Crown land at Erickson and Johnson Streets.

5. In Beach Area: An informal beach area exists east of the oil storage tank. The area is unorganized and not very safe.

6. School Gym: The gym is well equipped for sports such as volleyball and basketball.

Programs and Organization

Many of the recreational activities are of an informal nature. A part-time Recreation Director organizes the various activities which occur.

The community also is represented on the Athabasca Regional Recreation Board which attempts to program activities and special events on a regional basis.

Recreation Needs

The recreation needs fall in two categories: program needs and facility needs.

There is a need to provide organizations for a greater variety of activities. Coaching and instruction would be useful in many of the basic sports and leisure activities. Better qualified leaders are required.

From a facilities perspective, there is no covered arena within the Athabasca region. An arena at Stony Rapids could serve the local as well as the regional population. An arena site is shown on the concept plan for the community.

The land for playing fields is very limited for softball, soccer or other sports.

Another need is for a more organized approach to the beach area to increase safety. Site development could include clearing the shoreline, installing benches and picnic tables, and marking the drop-off points with buoys or signs.

The Department of Culture and Recreation through its field office in La Ronge provides advice and support on recreational and cultural activities.

.4 Communications

Postal service is provided daily via air service and the local Post Office.

Television was formerly confined to the CBC Northern Network from Edmonton. However, the settlement purchased a receiving/transmitting satellite dish which provides the signal for a number of American channels.

Telephone service is provided by Saskatchewan Telecommunications. A series of microwave towers carry telephone signals to and from the south. Servicing and accounts have been handled out of Sask Tel's Uranium City office in the past.

There is no newspaper in the Athabasca Region - the nearest weekly newspaper is the Northerner in La Ronge. Daily newspapers from Prince Albert and Saskatoon are available a day late.

.5 Public Safety

Police protection is provided to the Stony Rapids Region by the Royal Canadian Mounted Police. The local detachment has four officers and one special constable covering Stony Rapids, Black Lake and surrounding area.

Fire protection in Stony Rapids is provided by a trained, volunteer fire brigade under the direction of a fire chief. A 1500 gallon truck and fire fighting equipment are housed in the fire hall which is part of the Settlement office. The instruction in home safety and fire prevention is provided occasionally by the provincial Fire Commissioner's office from La Ronge.

.6 Cemetery

Up til the present time, the deceased have been buried in the cemetery at Stony Lake, on the Reserve about three miles east of Stony Rapids. Because the cemetery is virtually full and, because of difficult soil conditions, a new location is being sought by the Settlement. A site near a road, possibly near the river and, above all, with favourable soil conditions, is desirable. The terrain analysis map was used to locate candidate sites.

.7 Religion

Most of the residents are Catholic. A local Roman Catholic Church with a parish priest ministers to the spiritual needs of the community.

The Northern Canada Mission has provided a ministry within the community from time to time.

6.0 STONY RAPIDS ECONOMIC DEVELOPMENT

1. Employers and Employees

The local economy is relatively strong and diversified. The economic base comprises three distinct sectors: commercial services, mining and government and community services.

The employment by each sector in January of 1985 is shown in Table 6. A total of 75 full time and seven part time jobs.

The 'commercial services' sector is the largest and most varied sector. It includes ten businesses providing a total of 26 permanent jobs. A variety of businesses are included in this sector: retail sales, taxi, trucking, aviation, food and beverage, accommodation and others.

The 'commercial services' sector is dominated by transportation services, with aviation providing eleven full time jobs, or nearly half of all jobs within the sector. A number of business people interviewed within this sector were optimistic about their future business prospects.

Government and community services, including education and health, provide about one-third of the community's employment. The school, three provincial government departments, and federal agencies such as the post office and R.C.M.P. are included in this sector. It is likely that there will be some expansion of this sector. School populations will increase, causing increased demand for teachers. The future provision of government services, especially medical and health services in the area, is to some extent dependent on the future of Uranium City.

Eldor Mines represents the largest single employers within the community. The mine has provided a very substantial amount of meaningful and reasonably well-paid employment within the community. The 'seven days in - seven days out' plan for commuting to the Eldor Mine at Rabbit Lake/ Collins Bay allows individuals to maintain a home in Stony Rapids while working at the minesite. However, the system does mean that a large number of individuals cannot participate fully in family and community life. Moreover, one-third of the employment base, and probably more, when spin-off effects are considered, are dependent on one sector

TABLE 6: EMPLOYERS AND EMPLOYEES - 1985

Sector and Employer	Employees FT.	Employees PT.
A. Commercial Services		
- The Bay	5	1
- Aero North/Gulf Oil	5	1
- Snowbird Aviation	5	
- Hanson's Taxi	2	1
- Stony Rapids Motel	2	3
- Stony Rapids Enterprises	2	
- MacDonald's Billiards	1	1
- Leo's Delivery	2	2
- Norcanair	1	
- Frank's Delivery	1	
Total Commercial	26	9
B. Government and Community Services		
- Stony Rapids School	7	
- R.C.M.Police	4	1
- Department of Highways	2	
- Department of Parks and Renewable Resources	4	3
- Public Health Services	2	
- Northern Settlement of Stony Rapids		2
- Post Office	1	
- Outreach	1	
Total Government	21	6
C. Mining		
- Eldor Mine	21	
Total	68	15

FT. - Full Time
PT. - Part Time

Source: Norsask Native Outreach, January 1984.
Updated, to summer, 1985,
Stony Rapids Council.

of the economy - uranium mining - which is subject to price fluctuations, overseas, competition and government policy. The fact that northern Saskatchewan has some of the richest uranium ore deposits in the world, should ensure a viable mining industry well into the future.

A related concern is that residents of the community and the region have access to all three mines in the north. Currently, the distribution of employment is determined by the air commuting patterns established by the three mining companies. The Athabasca Region is served only by Eldor Mines. There is no scheduled air connection to Key Lake and to Cluff Lake.

.2 Other Sources of Income

In addition to the jobs shown above, there are additional forms of income through occasional or part time. Some of these additional sources of income are trapping, construction, guiding, loading and off-loading of the barge, and manufacture of handicrafts. It is difficult to measure the size of this sector of the economy. The income obtained is likely to be significant to the individual, but not so significant relative to the income obtained from permanent positions.

There are also some individuals receiving social assistance. The level of welfare payments is low relative to other northern communities.

.3 Concerns Regarding the Economic Base

While Stony Rapids has a relatively strong economic base relative to some other northern communities, there are a number of concerns which were identified by individuals during the course of the Planning Study. These include the following:

Transportation

1. The high cost of goods brought in due to infrequent barge services and high cost of air freight. Improved barge services, a winter road, and an all- weather road would improve the re-supply situation dramatically.

Infrastructure

2. The lack of a piped, centralized water supply and sewage disposal system creates high costs for businesses and institutions, like the hotel, which use a lot of water. The lack of sewer and water is seen as a constraint to economic development.

Education

3. Most importantly, the lack of on-going educational opportunities in the Region, which means that young people have to leave home for the higher grades of high school, trades and business training, and university and professional education.

Local Involvement

4. The fact that local, native people do not participate more fully in the higher level management, professional and technical positions. There are opportunities in business, administration, education, and the trades within the community and the region. The success of local people to exploit these opportunities is largely a matter of education, individual initiative and a favourable institutional framework. It seems only right and fair that native and northern people participate fully in northern development.

Business Services

5. The distance to basic business services such as banking, accounting, legal and other business and personal services in the Athabasca Region.

7.0 STONY RAPIDS: MUNICIPAL GOVERNMENT

.1 Municipal Status

Before 1983, Stony Rapids was a Local Advisory Council (LAC), within the Northern Municipal Council (NMC). The NMC included all of Northern Saskatchewan. One member represented the unincorporated communities of the Athabasca Region.

Under the Northern Municipalities Act of 1983, the LAC became the Northern Settlement of Stony Rapids. The NMC was dissolved. The Northern Settlement is advisory to the Minister of Urban Affairs. It is not a municipal corporation such as a northern hamlet or northern village.

The Northern Settlement elects a local advisory committee of five members and a chairman.

Stony Rapids has the population and the assessment to become a northern hamlet. However, the community has chosen not to do so. If the community does want to become a hamlet, it would have to petition the minister under Section 9 of the Act.

.2 Municipal Finance and Operations

The Settlement provides basic services such as fire protection, waste pickup, recreation services and a number of other services.

To finance its operations, the settlement relies on the Northern Revenue Sharing Program administered by the Department of Urban Affairs. For the past two years, a grant of $102,000 was received. This amount is based on a formula combining population, assessment and a northern factor.

Funds for capital improvements are available through the Northern Capital Grants Program. Stony Rapids has $89,900 available for the 5 year period ending December 31, 1987. This figure is based on $250 per capita using the 1980 Municipal Census, or 1981 Federal Census. This grant can be combined with other funding programs.

.3 Municipal Boundary

In 1984, a municipal boundary was finally defined. Formerly, the boundary had not been established and was considered to be the limit of the subdivision plans. The new boundary was established to include enough land to meet the long term growth needs of the community.

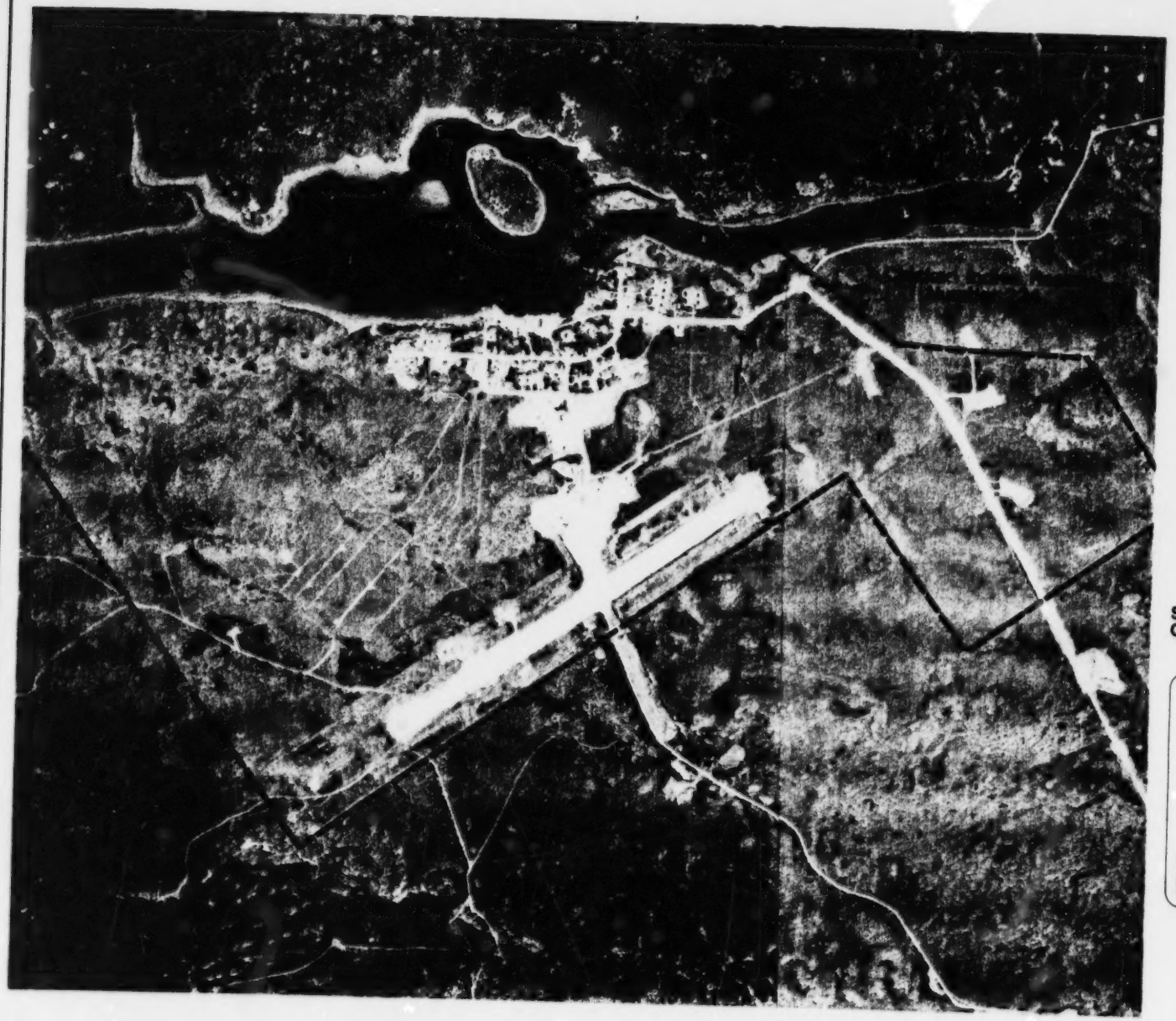
The new municipal boundary is shown on Map 17.

.4 Land Controls and Ownership

The settlement would like to increase land use control and disposal of land. Leases on Crown lands are still administered by the Department of Parks and Renewable Resources. However, these are referred to the Settlement for comment. As a hamlet, the community could take over Crown lands within surveyed areas within its boundaries and administer leases.

The settlement has limited control over land use. The primary means of control would be through recommendations to the Department of Urban Affairs on the sale of lots. As a hamlet, the community would pass a Basic Planning Statement Bylaw and Zoning Bylaw to regulate land use.

A concern of the settlement is the lack of funds to develop new housing or industrial areas. Currently, the industrial area is surveyed but not serviced. As shown earlier, even the cost of putting in roads, drainage and power to conventional standards could be considerable - in the order of one hundred and thirty thousand dollars. Similarly, there will be substantial costs to developing Gee Place, if this is required to be done before water and sewer is installed.



STONY RAPIDS
COMMUNITY PLANNING
STUDY

SETTLEMENT BOUNDARY

17

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PART TWO
THE FUTURE

PART TWO: FUTURE CHANGE AND GROWTH

1.0 REGIONAL GROWTH PROSPECTS

Stony Rapids' potential for development is affected very strongly by events and developments occurring in the region. As a centre for air and water transportation, it is in a logical place to locate services which serve the Region.

A number of factors or events are worth considering in the pattern of regional prospects, as follows:

1. The final decision regarding Uranium City Hospital and long term provision of health and medical care to the regional residents.

2. A high rate of growth in the regional communities of Black Lake and Fond du Lac, with ongoing need for a full range of services and goods. Indian and Northern Affairs Canada (INAC) in 1983 designated Stony Rapids as its centre for delivering services to the Athabasca Bands.

3. The development of mineral resources in the Athabasca Region.

4. Construction of a hydro line from Uranium City through Stony Rapids and Black Lake to Rabbit Lake.

5. Further development of renewable resources: tourism, fisheries and trapping.

6. The resolution of the problem of surface access to the region: barge service, winter road, all-weather road.

It is a matter of some speculation as to the timing of some of these events. Two things are certain, however.

The first is that populations are growing rapidly, creating demands for a variety of goods and services, from construction materials to educational facilities to consumer goods.

The second point is that Stony Rapids, as the largest air base and at the head of navigation on the Athabasca/Fond du Lac system is strategically located to experience spin-offs from growth in the other communities.

Given its regional location and a rapidly growing population within the community, it seems certain that Stony Rapids will continue to grow at a substantial pace. This will provide ongoing needs for affordable housing, land, employment, commercial services, education, health and other community services.

The extent to which the population may grow is discussed in Section 2.0.

2.0 POPULATION PROJECTIONS

Population growth is caused by two factors: natural increase, that is, the excess of births over deaths; and migration, that is, the number of people moving to or leaving a community.

Natural increase is relatively easy to predict, using average birth rates, death rates and the age distribution of women in their child bearing years.

Migration rates are less easy to predict. People generally move to or away from a community for reasons which have to do with jobs, education or family. Generally, if jobs are plentiful, people will move in. Otherwise, people may leave.

This does not always apply. The Indian people of the Athabasca region tend to stay in their home communities despite the lack of jobs. The ties of family, culture, community and land are stronger than the lure of the outside world.

With respect to Stony Rapids, it is expected that the native population will tend to remain. Some people will leave, but some will also return. The non-natives will continue to come and go, but it seems likely that more will arrive than will leave.

With these thoughts in mind, the consultant had population projections prepared, using a computerized system which accounts for age distribution, birth rates and death rates, and which makes some assumptions about migration. The projections used 1983 as a base year.

The detailed figures are presented in Table 7. According to these projections, it appears that the population of Stony Rapids will be in the range of 315 to 360 by 1990 and between 400 and 550 by 2000.

The 1984 population turned out to be somewhat higher than projected. Consequently, it appears that migration is more of a factor than had been thought. Probably this is due to the decline of Uranium City and the gradual emergence of Stony Rapids as a regional centre.

The third projection seems to be the most realistic. Under these assumptions, the population would be 358 by 1990 and 480 by the year 2000.

TABLE 7: POPULATION PROJECTIONS - STONY RAPIDS

	Assumption	Year 1983	1985	5 yr. 1990	10 yr. 1995	15 yr. 2000	20 yr. 2005	25 yr. 2010	Average Per Year
I.	High Natural Increase No Migration	266	286	315	352	392	438	487	2.0 to 2.2%
II.	High Natural Increase In-Migration - 10 Percent over Five Years	266	292	361	444	544	668	817	4.5 to 4.7%
III.	Declining Natural Increase, In-Migration - 10 Percent over Five Years	266	290	358	412	480	556	634	2.8 to 3.2%

Comment: Projection III appears to be the most realistic projection.

Source: Access Consulting
Saskatchewan Hospital Services Plan

3.0 PLANNING TARGETS

Given the range of population projections, which reflects some of the uncertainty about what will happen in Stony Rapids, it is necessary to select some population level as being a suitable target on which to base future growth requirements.

Considering the regional development situation and the community population dynamics, planning targets were established as follows:

- Short Term Target: Population of 350. Probable Date: 1988 to 1990,
- Medium Term Target: Population of 500. Probable Date: 1998 to 2002,
- Long Term Target: Population of 750. Probable Date: 2010 to 2015.

These targets are a workable basis for estimating future needs for housing, land, roads, community facilities, utilities and community services. The following sections deal with those needs. In addition, needs and problems which are evident today are dealt with.

The rate of growth can change quickly in any community. This is especially true in northern communities where growth is often associated with major projects: construction or munical exploration. Therefore it is important that the community monitor events in the region carefully, to be prepared for sudden, anticipated spurts of growth.

4.0 COMMUNITY CAPABILITY FOR EXPANSION

4.1 Infill and Redevelopment Potential

Parcels of land which are vacant or which could be redeveloped are identified in Table 8 and on Map 18.

A total of about seven to eight acres of land on ten different sites are identified. While some of this land no doubt is committed by the owners or lessees to some future use, this inventory does illustrate the extent of the potential for infill or redevelopment.

There are other development sites.

The Highways and Resources yard represents a potential infill area. The existing storage could possibly be relocated to the vacant industrial lots to the west. This would release land which could be redeveloped for some more intensive use. While it is recognized that the new garage is in place and will be useful for many years, the north portion of the site appears to have potential for redevelopment for commercial uses or government buildings.

As indicated in a previous section, the community is over-dedicated in terms of Public Reserve.

During the course of the Planning Study, two Public Reserve areas were identified as being of limited suitability for recreational use while being well located for more intensive development.

The R4 Public Reserve south of the school and opposite the diesel generator has an area of 3.8 acres. It is stony and has somewhat rough topography. For these reasons, it is currently unsuitable for playing fields. A lot of site grading would be required to develop recreational facilities on the site.

Its location near the airport and on Erickson, which will have sewer and water lines in the future, makes it a prime candidate for more intensive development such as commercial use. Sketch plans have been prepared to illustrate the subdivision of the lot into two, three or more commercial lots. These, with an engineering evaluation, are shown in Appendix A.

The R6 Public Reserve south of Caribou Drive has an area of 3.04 acres. Ponding and steep slopes on the southern portion limit development possibilities. However, with some drainage, filling and site levelling, the area is large enough for a variety of uses. Appendix A shows some lot development possibilities.

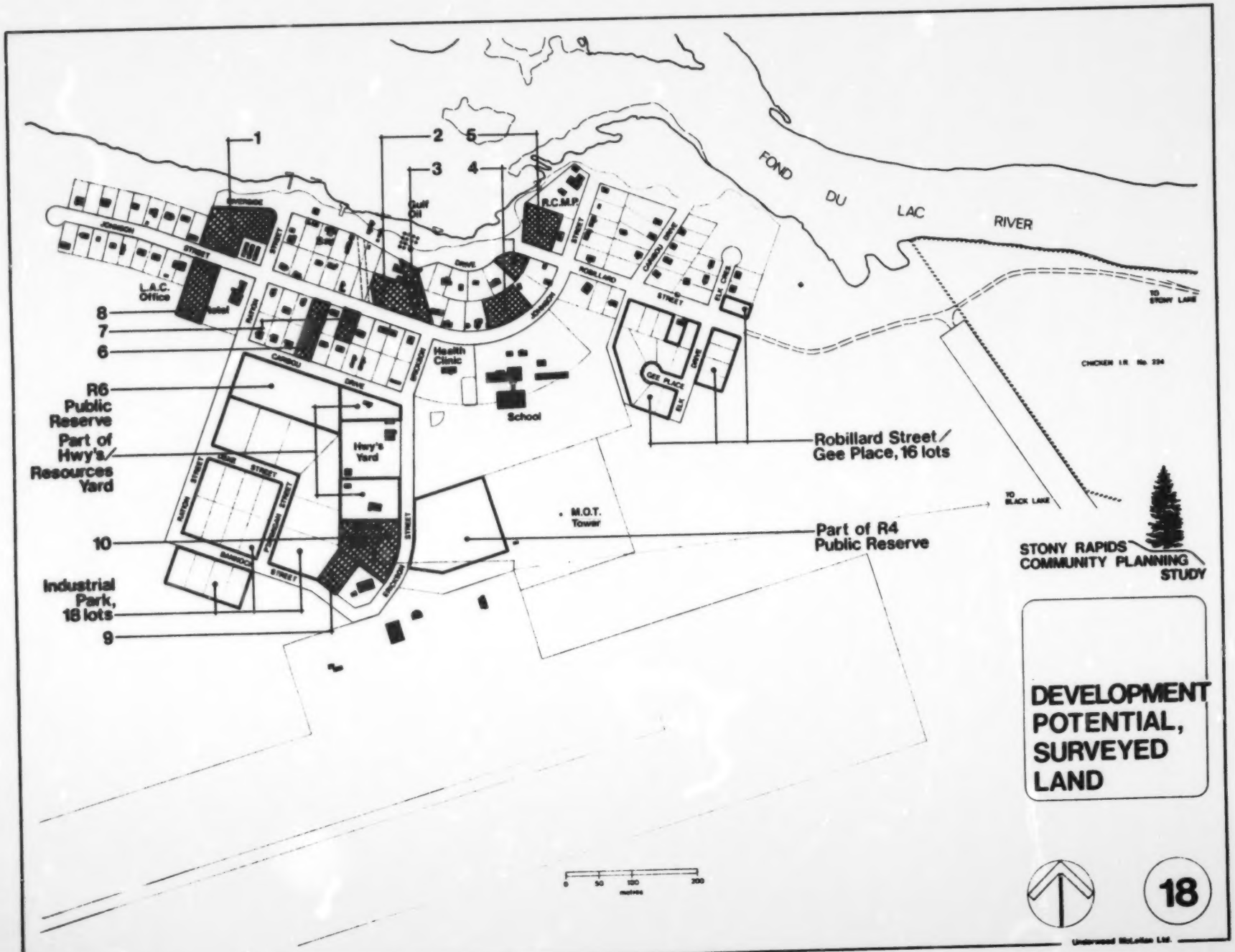

FOND DU LAC RIVER
1
2
3
4
5
6
7
8
9
10
R6 Public Reserve
Part of Hwy's/ Resources Yard
Industrial Park, 18 lots
Robillard Street/ Gee Place, 16 lots
Part of R4 Public Reserve
L.A.C. Office
Health Clinic
School
R.C.M.P.
Gulf Oil
Hwy's Yard
M.O.T. Tower
TO STONY LAKE
TO BLACK LAKE
CHICKEN I.R. No. 224
STONY RAPIDS COMMUNITY PLANNING STUDY
DEVELOPMENT POTENTIAL, SURVEYED LAND
18
Underwood McLellan Ltd.

TABLE 8

INFILL OR REDEVELOPMENT PROPERTIES

1. Parcel A, Johnson and Ration Street. 1.6 acres. This is the former Indian Affairs sub-agency office. Steeply sloping. Unpatented Crown land with lease to Indian Affairs. Now in use as Regional sub-office.

2. Lots 8 and 9, Block 1. 0.6 acres. Current playground site. Key location on Johnson Street. Before any development proceeds, another playground site must be developed. Unpatented Crown land. The new road will take up the southwest corner of the site. Suitable for institutional, commercial, or residential.

3. Erickson Street Closure. 0.4 acres (two standard sized lots). Steep slopes. May be available to landowners on either side following closure. Currently road allowance. Suitable for commercial, institutional, or residential.

4. Lots 6, 8 and 9, Block 3. 1.0 acres. Private and unpatented Crown land used for building site and storage. Suitable for residential, commercial, or institutional.

5. Lots 2 and 3, Block 4. 0.4 acres. Unpatented Crown Land. Overlooks River. Cabin on northwest corner. Suitable for residential, commercial, or institutional.

6. Lot 17, Block 2. .25 acres. Unpatented Crown Land. Drainage problem. Suitable for residential or playground.

7. Lots 4 and 6, Block 2. .25 acres. Private ownership. Suitable for residential or commercial.

8. Parcel B, West Half. 1.1 acres. Undeveloped part of Hotel site. Suitable for Hotel expansion, institutional or residential.

9. West Half of Lot 2, Block 13. 1.0 acres. Privately owned. Part of existing store property. Suitable for commercial.

10. North Sask Electric Site.

Because of the residential development across the street, industrial or commercial uses may not be considered suitable. However the site might be suitable for an office building, hospital, arena, or special purpose residential use. Some of the space should be retained for active playground use. This is probably a longer term development prospect than the R4 parcel mentioned above.

The Planning and Development Act requires that where Public Reserve is closed, an equivalent area must be provided in some other area. In this instance, this could be taken in the new residential development area described in the subsequent section, as well as along the river front.

4.2 Servicing Proposals

As indicated earlier, a water and sewer system for Stony Rapids is now in the design stage. No commitment is yet forthcoming as to the timing of construction. It is anticipated, however, that the capital cost of the system would be carried by the Provincial Government, supported by provincial operating grants.

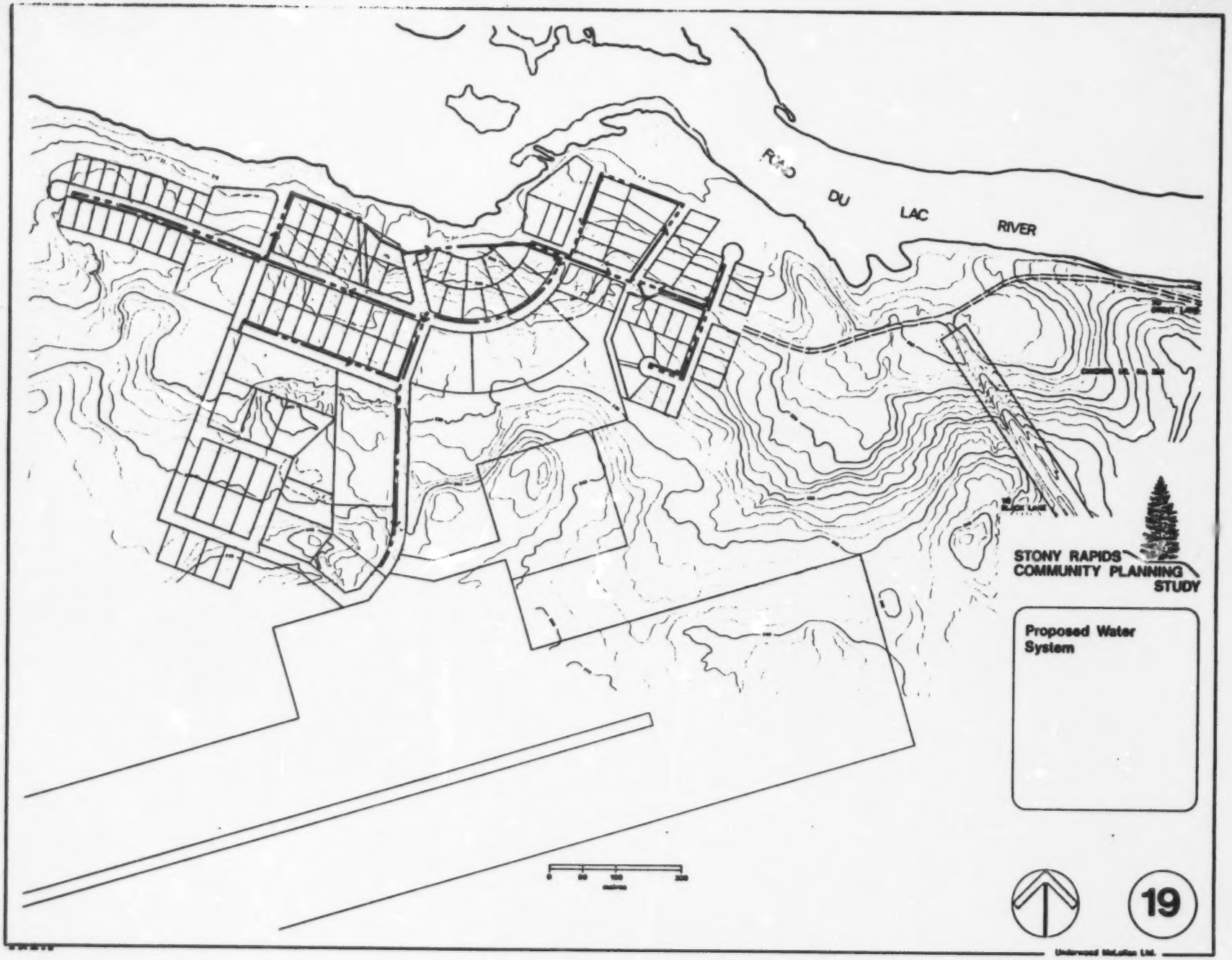
The system as currently proposed is shown on Maps 19 & 20. All existing development, as well as the new subdivision on Elk Drive, would be served by watermains and sewer trunks.

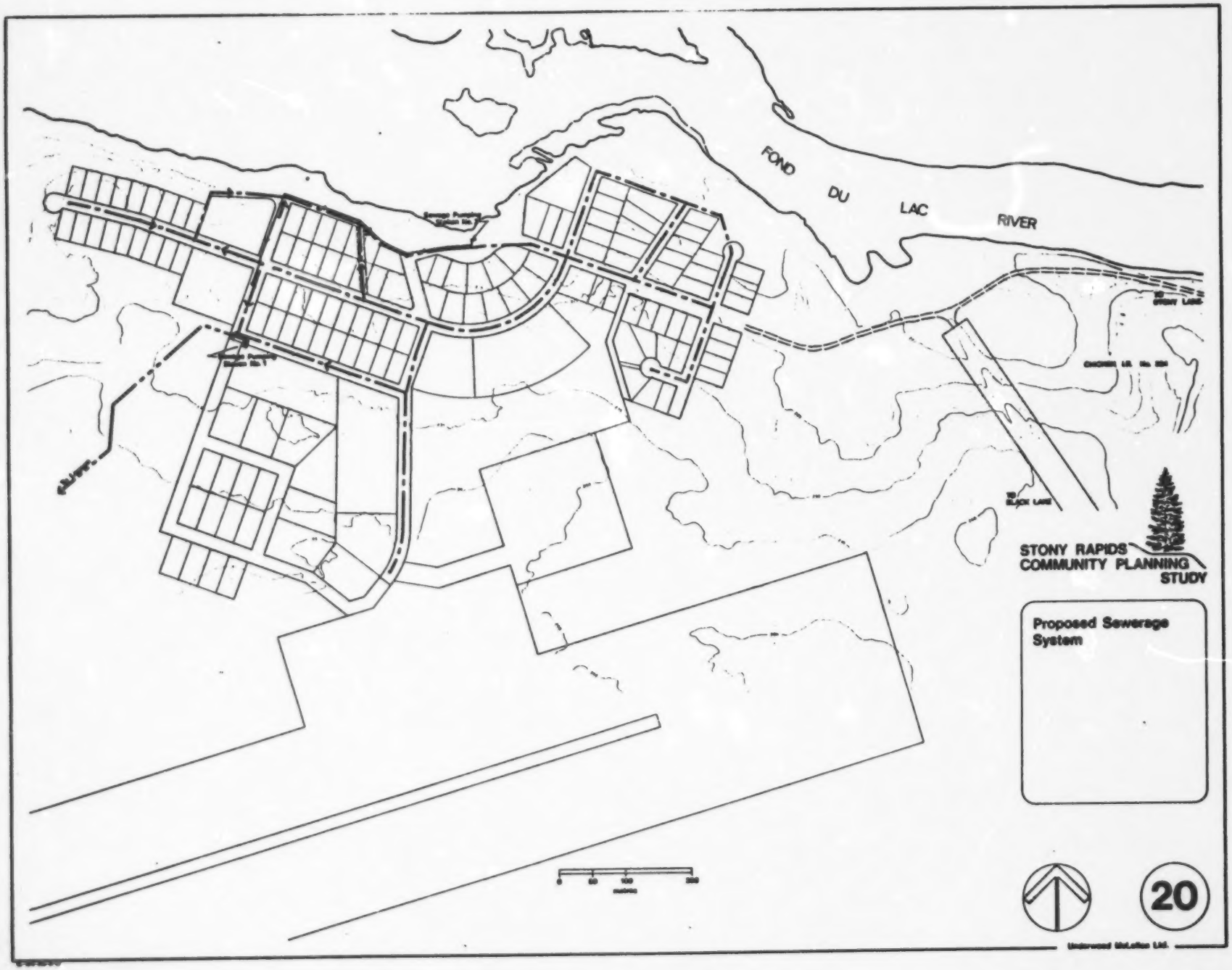
The water supply would be from the Fond du Lac River, with a possible location for the intake and treatment plant being along Riverside Drive. Collection of liquid waste would be by conventional gravity sewer. A pumping station east of the Gulf station would pump waste by a forcemain to a second pumping station located south of Caribou Drive at Ration Street. From that point liquid waste will be pumped to a lagoon located about 800 metres (2600 feet) to the southwest for treatment.

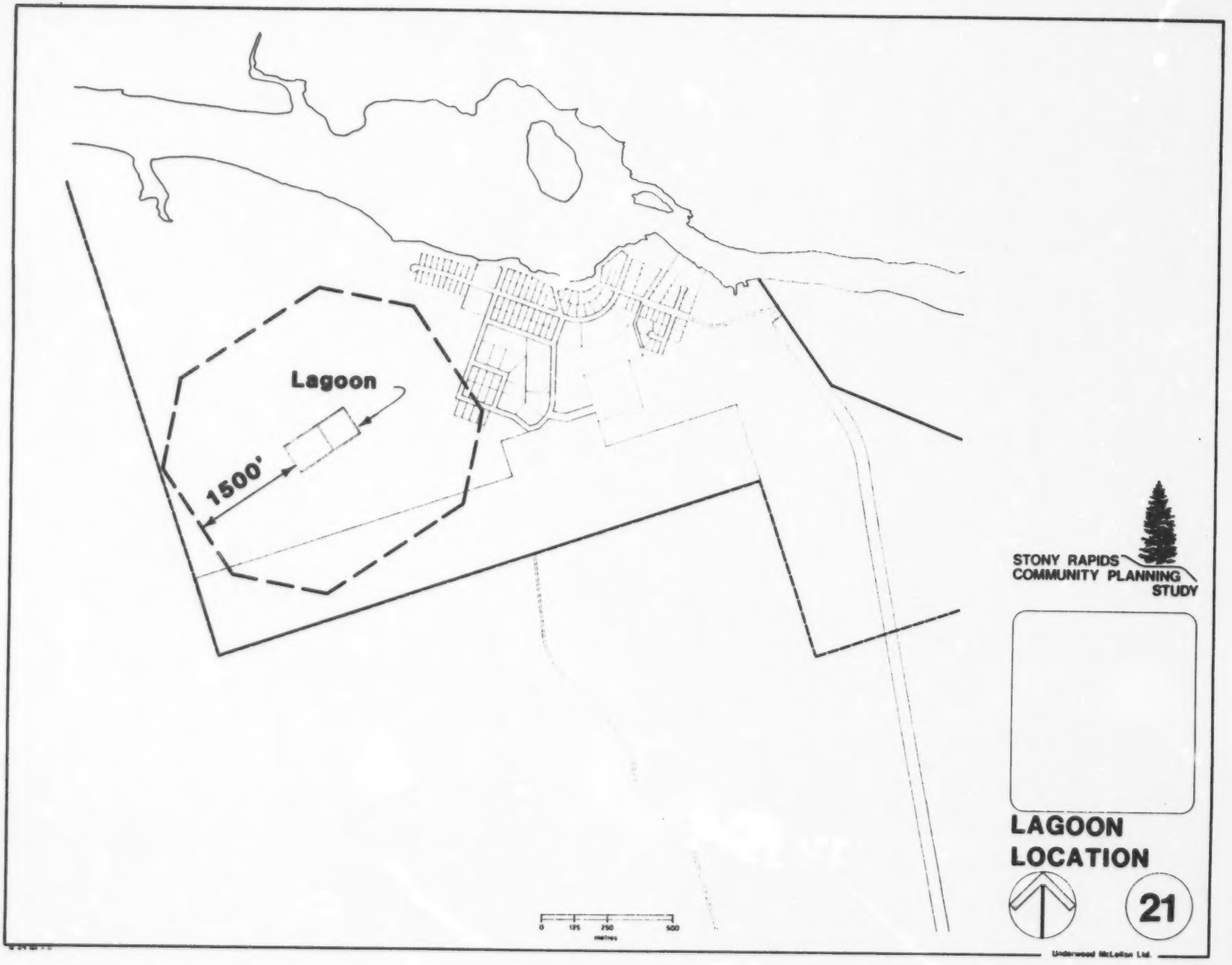
The system will have two important effects on the use of land in the community.

First of all, it is possible that further extensions of the system will have to be paid for by the community. Therefore, the most efficient use of land along existing lines will delay the time when extensions are needed. Also, it seems sensible to locate those uses not requiring piped water and sewer on locations off the lines.

Secondly, provincial guidelines suggest a 1500 foot separating distance between the edge of the lagoon and the nearest residential area. This imposes a constraint to the southwesterly expansion on the community for residential purposes. This limiting factor is shown on Map 21.


RIVIERE DU LAC
RIVER
STONY RAPIDS
COMMUNITY PLANNING
STUDY
Proposed Water
System
19


FOND DU LAC RIVER
STONY RAPIDS
COMMUNITY PLANNING
STUDY
Proposed Sewerage System
20


Lagoon
1500'
0
125
250
500
metres
STONY RAPIDS
COMMUNITY PLANNING
STUDY
LAGOON
LOCATION
21
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4.3 Land for Expansion

While there are barriers to the direction of development on virtually all sides of the community, there are also several potential development areas which appear to be nearly ideal for community expansion. These areas are well drained, offer good views of the river, and are relatively free of boulders and bedrock.

Development constraints included:

i) the Fond du Lac River and a low-lying shoreline to the north and northeast,
ii) the Chicken Indian Reserve to the east of the Black Lake Road,
iii) hilly, bouldery areas to the southeast and southwest,
iv) the airport and low-lying lands to the south,
v) steep slopes and low-lying land to the west,
vi) the 1500 foot limiting distance for residential development to the southwest surrounding the proposed sewage lagoon.

In addition to the infill or redevelopment lots identified in Section 4.0, there are thirteen surveyed, vacant lots for residential use to the east of the community. If each lot were occupied by one dwelling, these lots could accommodate an additional 45 people, at 3.5 persons per dwelling.

As discussed in an earlier section, two prime potential development areas were identified to the southeast and southwest. The area to the southeast has an area of 14-15 hectares (35-37 acres). At 3.5 persons per dwelling and three dwellings per acre, this area could accommodate an additional population of 370 to 390 people. More people could be accommodated if lots become smaller or if duplexes, townhouses or apartments are built.

This area is most suitable for residential development because of the overall slope to the north, the fine views of the river valley, the distance from industrial areas, the proximity to the school and the favourable soil characteristics.

Full development of this area for residential purposes only would bring the population of Stony Rapids to 750, assuming 30 additional people in the existing community through infill or redevelopment.

The southwest expansion area appears to be better suited for industrial uses, due to the existing industrial uses in the area, the proposed sewage lagoon, and the distance from the River. There should be more than adequate land for industrial development well past the 750 target population.

There are also lands suitable for industrial or highway commercial development located within the community boundaries along the Black Lake Road. Servicing would have to be by individual systems.

Beyond the 750 population, a number of possibilities exist. These include relocation of the sewage lagoon to the southwest, relocation of the airport, and joint development of lands east of the Black Lake Road as a joint venture with the Stony Rapids Indian Band.

5.0 LAND AND FACILITY REQUIREMENTS

This section presents the housing, land use and community facility requirements associated with each of the targets along with immediate needs.

5.1 Housing and Residential Land

A number of dwelling units (about ten) are required immediately to relieve overcrowding in existing units. These could be attached, rental units (duplexes, townhouses or apartments) or conventional detached units. Also, there may be a need for more staff housing for government or business employees.

The additional housing units and residential land required for the various target populations are as follows:

- 350 target, 1988-1990: 18 units, 6.6 acres,
- 500 target, 1998-2000: 40 units, 13.3 acres,
- 750 target, 2010-2015: 70 units, 23.3 acres.

Total: 128 units, 43.5 acres.

There seems to be a reasonable balance between supply and demand regarding the 750 population target. The east development area would just accommodate the anticipated housing and residential needs for the 750 target. Some increase in residential densities would increase the capacity of the area.

5.2 Commercial Facilities and Land Use

The completion of an all-weather road would be a major impetus for more commercial facilities of all kinds. Because it is difficult to predict the types of facilities which might develop, the most sensible course seems to be to ensure that there is an adequate inventory of commercial land on hand at all times. This has not always been the case in the past.

At some time in the future, there may be a need for a small grocery store in the new residential area to the east. Also the land north of the intersection of Robillard Street and the Black Lake Road may be a prime site for a special commercial use, depending on the construction of a bypass, and on servicing considerations.

5.3 Industrial Land Use

The completion of an all-weather road would no doubt lead to a lot of transportation related businesses such as trucking depots, warehousing and storage of building supplies, machinery and equipment and a variety of other uses.

The surveyed industrial lots along Bannock and Ration Street should provide sufficient inventory to satisfy needs in the foreseeable future. The real problem is one of the cost developing the industrial area. The estimated cost of road development and drawings is estimated to be $50,000, while for power installation would be $30,000.

Additional industrial land could be made available to the southwest of Bannock Street as well along the flanks of the airport, subject to airport regulations.

However, if the percentage of land for industrial remains the same as current, the industrial lots should accommodate all uses. This would avoid the necessity for any further industrial development along the shoreline.

5.4 Institutional Land Use

Consideration should be given to sites for a provincial government building of a modest size and a health clinic/hospital.

There is no commitment at this time to either facility, but it is sensible to identify these needs and provide possible sites for them.

There are a number of possible sites for a provincial government office building (one acre) including:

- the north end of the Highways/ Resources compound,
- the northwest corner of Erickson and Caribou (small),
- the northwest corner of Erickson and Johnson (sloping),
- the R4 Reserve site (isolated) or the east end of the R6 (site development needed).

Possible sites for a health clinic/ hospital (up to two acres) would be the east part of the R6 Reserve or the present site. The current site has an area of 1.5 acres, excluding the skating rink, is well treed and is centrally located. It has good access to the airport and to the road system. Ancillary buildings such as residences or a hostel would have to be considered as well.

5.5 Recreational Facilities and Open Space

While the community is over-dedicated in terms of open space, there is a shortage of level playing fields currently. It is anticipated that more will be needed in the future.

Also, the community hopes to have a covered ice surface in the near future.

And, if the current playground is redeveloped, a new location would have to be found.

The Public Reserve lands to the northeast of the school and curling rink appear to offer the best possible site for an arena or playing fields. Unfortunately, this site is occupied by a fine stand of spruce and pine trees. Extending the Public Reserve to the east would provide more space, but this would require a resurvey of the Gee Place lots.

An arena site southeast of the school may be possible but extensive levelling would be required. Also, this would create a shortage of parking space.

Alternate sites for both arena and playing fields would be part of the current R6 Public Reserve, with the balance being some other use. The problems here would be of potential conflict with residences and the site development costs.

Finally, the current playing fields could be used for an arena site, with playing fields developed to the northeast and southeast of the school.

The site of the old skating rink would be a good site for a relocated playground.

The final need is to create an attractive and safe waterfront beach and picnic area, away from currents, boats and planes.

5.6 Roads

A road from the airport directly east to the Black Lake Road would decrease traffic through the future eastern residential area. It would also be more convenient for traffic travelling to and from Black Lake. Also the lands flanking the airport would be made accessible for industrial development. This is seen as a long term development project which would require the support of the Department of Highways.

Secondly, a link to the winter road west to Fond du Lac is already in place. If this were linked to Ration Street, instead of coming out on Caribou Drive, heavy traffic would be kept off Caribou and directed to the Airport area.

6.0 COMMUNITY LAND USE PLAN AND POLICIES

6.1 Future Land Use Plan

The general idea of future development is shown on the Future Land Use Plan on Map 23 . The Plan shows the land use, facility and transportation requirements discussed in the previous sections.

Enough residential land is designated in three stages to take the population to 750.

Other infill possibilities for apartments, offices or commercial uses are shown.

Commercial lands could be developed in two stages: Stage 1, vacant lands created by the replot of Erickson Street and other properties fronting on Erickson Street: Stage 2, the development of part of the R4 Public Reserve as shown, along with the possible redevelopment of the current diesel plant site if it relocates to a larger site.

The possible sites for arena, health facility, office building, and playgrounds are shown as discussed. A playground isessential if the current playground site is developed after the replot.

Additional Public Reserve is shown as part of the eastward residential expansion. It should be located so that people can walk to the school and other facilities in the heart of the settlement.

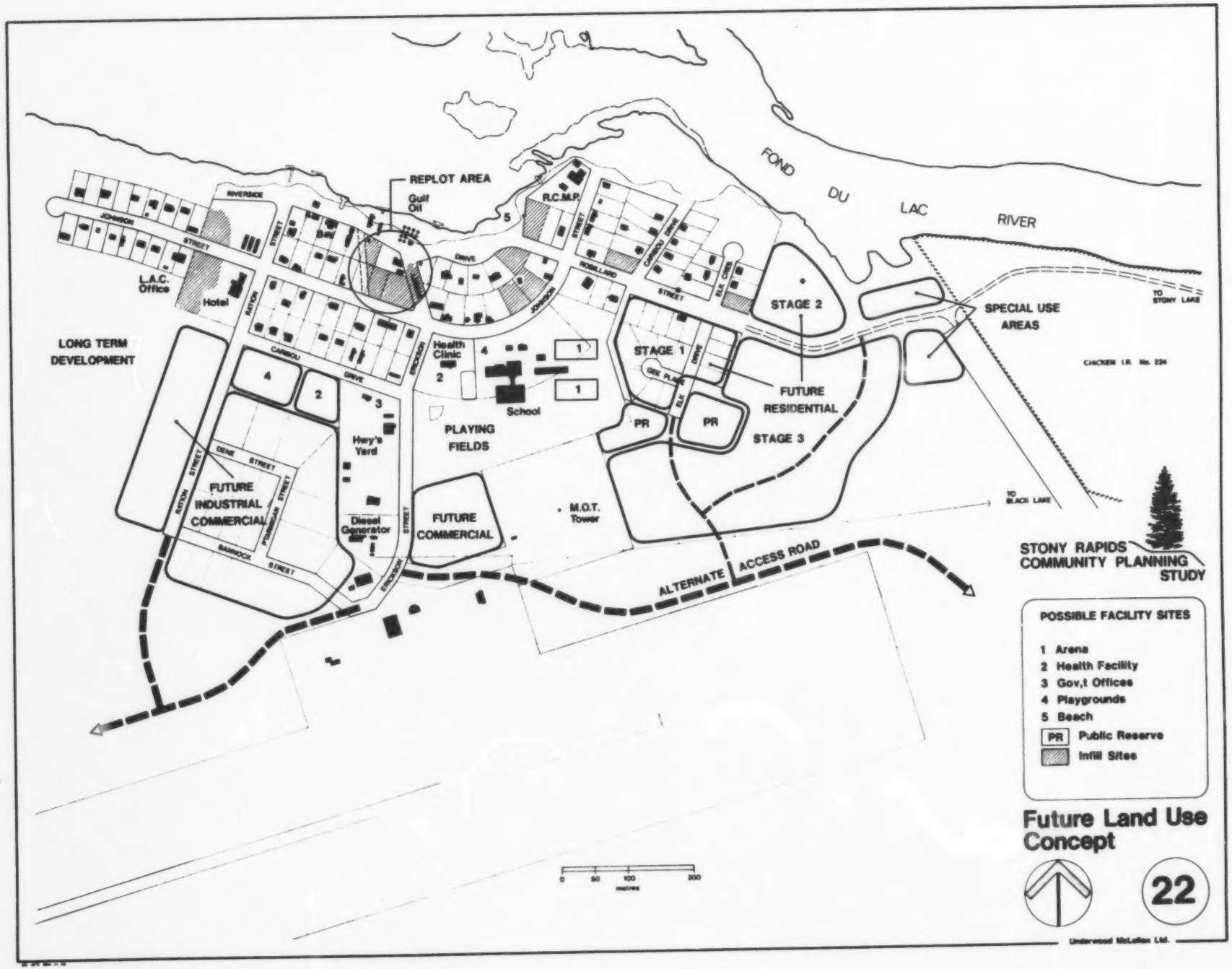
The industrial lots west of the highways yard provide a lot of space for industrial and commercial uses.

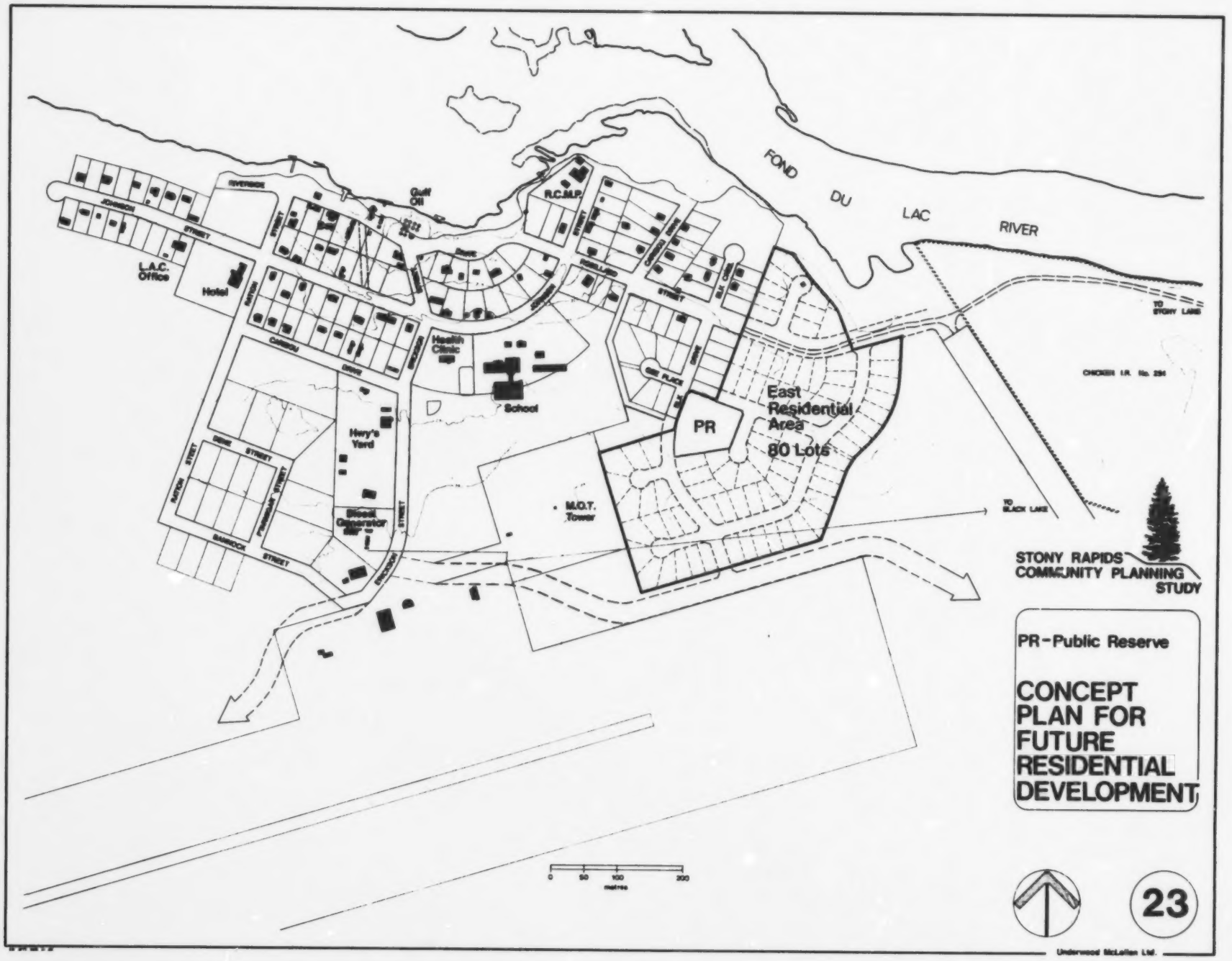
The land use concept as shown should provide for a serviced area for a doubling of the settlement's population.

6.2 Community Land Use Policies

.1 Introduction

A number of land use problems were identified in an earlier section. These include: the growth of home businesses, the need for more commercial lots, the location of new commercial lots, the possibilities for redevelopment of existing properties.


FOND DU LAC RIVER
REPLOT AREA
Gulf Oil
R.C.M.P.
L.A.C. Office
Hotel
LONG TERM DEVELOPMENT
Health Clinic
School
PLAYING FIELDS
Hwy's Yard
Diesel Generator
FUTURE INDUSTRIAL COMMERCIAL
FUTURE COMMERCIAL
M.O.T. Tower
STAGE 1
STAGE 2
STAGE 3
FUTURE RESIDENTIAL
SPECIAL USE AREAS
PR
ALTERNATE ACCESS ROAD
TO STONY LAKE
TO BLACK LAKE
CHICKEN I.R. No. 234
STONY RAPIDS COMMUNITY PLANNING STUDY
POSSIBLE FACILITY SITES
1 Arena
2 Health Facility
3 Gov,t Offices
4 Playgrounds
5 Beach
PR Public Reserve
Infill Sites
Future Land Use Concept
22
Underwood McLellan Ltd.


FOND DU LAC RIVER
L.A.C. Office
Hotel
Gulf Oil
R.C.M.P.
Health Clinic
School
Hwy's Yard
M.O.T. Tower
East Residential Area
80 Lots
PR
TO STONY LAKE
TO BLACK LAKE
STONY RAPIDS COMMUNITY PLANNING STUDY
PR - Public Reserve
CONCEPT PLAN FOR FUTURE RESIDENTIAL DEVELOPMENT
23
Underwood McLellan Ltd.

The objectives and policies presented in this section begin to provide guidelines for the council to make decisions for development proposals. The policies are intended as guidelines for the land use plan shown on the previous page.

.2 Definitions

Certain terms should perhaps be explained to prevent confusion. The two types of land use, commercial and industrial, as applied to this study, will be used to denote the type of activity rather than the type of business.

Uses which require a lot of outdoor storage of heavy equipment, tanks or supplies are considered to be industrial. The same applies to uses which generate heavy vehicle movement or which require a great deal of loading or unloading. Thus industrial would include the Highways and Resources yard, the bulk oil dealership, and the diesel plant. Similarly, the airport and related activities can be considered to be industrial, although they include a lot of commercial activity.

The term 'commercial', as used here, refers to retail stores, the hotel, pool rooms, offices, service stations and other uses.

The term institutional refers to schools, clinics, churches, hospitals, government offices and similar uses.

.3 Goals and Objectives

Goals and objectives attempt to state what a community is trying to achieve. It is important to state these as an overall framework to help make decisions.

With regard to future development of land and facilities, the following objectives are suggested as being suitable for Stony Rapids.

1. To provide enough land and sites for future development.

2. To maintain an adequate supply of land for housing.

3. To ensure sufficient housing for all residents and age groups, including young families and singles and the elderly.

4. To keep residential areas relatively free of heavy traffic, noise and other nuisances and other hazards.

5. To encourage business and service areas convenient for all residents, and attractive to business people.

6. To maintain a supply of commercial and industrial land to accommodate businesses looking for a place to establish.

7. To maintain parks, playgrounds and recreational facilities for all age groups and people.

8. To maintain, as much as possible, the attractive tree cover of the community.

9. To maintain the waterfront as a safe, interesting, and attractive place for residents and visitors.

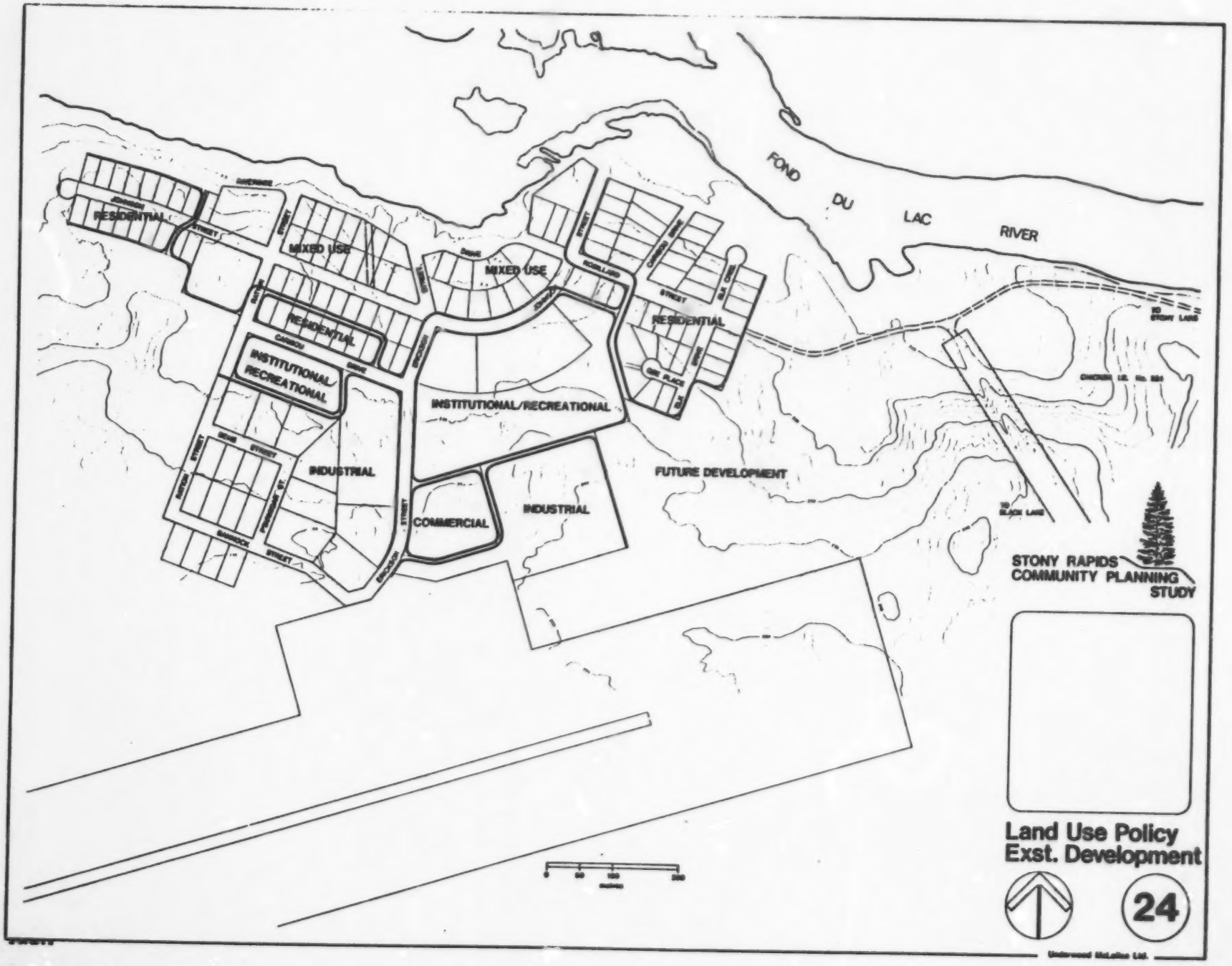
.4 Land Use Policies

The following policies are suggested to achieve the objectives outlined above:

1. The Northern Settlement of Stony Rapids will be divided in five land use zones: residential, mixed use, institutional/ recreation, commercial and industrial as shown on Map .

2. The residential district will include areas in the east and west end of the community. Only housing, churches, playgrounds and other suitable uses will be permitted in these areas. Home businesses will be permitted where there is no outside storage. However, small outside signs will be permitted.

3. The mixed use area will occupy the older, central part of the community. Development or redevelopment will be evaluated on the basis of individual proposals. As there is still a lot of residential development here, decisions on what to allow or encourage will be based on considerations of safety to residents and pedestrians and on general appearance. Industrial uses will be discouraged. Commercial uses will be


FOND DU LAC RIVER
RESIDENTIAL
MIXED USE
MIXED USE
RESIDENTIAL
INSTITUTIONAL/ RECREATIONAL
INSTITUTIONAL/RECREATIONAL
RESIDENTIAL
INDUSTRIAL
COMMERCIAL
INDUSTRIAL
FUTURE DEVELOPMENT
STONY RAPIDS COMMUNITY PLANNING STUDY
Land Use Policy
Exst. Development
24

encouraged to locate here, especially within the Erickson Street replot area, as well as in other parts of the mixed-use district depending on the nature of the proposal.

4. The Settlement of Stony Rapids will encourage new businesses to expand or come to the community by making commercial land available on a staged basis as follows:

   Stage One: the Erickson Street Replot and infilling within the mixed used area,

   Stage Two: south R4 Public Reserve

   Stage Three: redevelopment of Highways/Resources yard.

5. The Settlement of Stony Rapids will encourage the relocation of the North Sask Electric Diesel Plant and the redevelopment of that site for commercial purposes.

6. Stony Rapids will attempt to create a compact 'Main Street' along Erickson Street with the redevelopment of the properties mentioned above.

7. Industrial users will be encouraged to locate within the industrial lots designated west of the airport.

8. The Settlement of Stony Rapids will seek senior government assistance to provide roads, power and other services to the industrial area.

9. The 'Institutional/Recreational' area will include space for future recreational expansion, government office, arena, and medical/health facility.

10. Individuals who wish to construct their own home outside of the existing surveyed area will be permitted to do so. However, the location should be planned to tie into a future development. Also, such homes should be within an approved rural residential survey.

7.0 SOCIAL DEVELOPMENT POLICIES

Social development includes the areas of housing, recreation, education, health, public protection, culture and other areas.

The Northern Settlement of Stony Rapids will:

1. Encourage Saskatchewan Housing Corporation and Central Mortgage Housing Corporation to establish programs for low-cost, owner-built housing programs.

2. Encourage Saskatchewan Housing Corporation to assist in providing rental housing for young singles and families, and for the elderly.

3. Urge the provincial and federal governments to deal with the problem of health and medical services in the Athabasca Region in anticipation of the closure of Uranium City Hospital.

4. Join with other regional communities to press for better health and medical care in the Athabasca Region.

5. Urge the provincial government to reinstate the food transport subsidy.

6. Increase the recreational programming and facilities available to the people of Stony Rapids.

7. Encourage greater participation in available educational programs.

8.0 ECONOMIC DEVELOPMENT OBJECTIVES

Related to each of the concerns listed in Part I, Section 6.1 are five corresponding policy objectives for the community and region.

Objective 1: Transportation: To secure a dependable and lower cost supply and re-supply surface transportation system: first, improved barge system; second, winter road; third, all-weather road.

The community should present the needs of the community to the political decision-makers on a consistent and ongoing basis. This should be done on both a local and on a regional basis, in co-operation with other Athabasca communities.

Objective 2: Water and Sewer: To construct the system as designed as soon as possible. The community should continue to present the need to decision-makers in government at both administrative and political levels.

Objective 3: Education: To improve educational opportunities within the region and the community in all areas: high school, post-secondary technical and professional, business education. To achieve this objective will require the co-operation of all involved agencies: the Community College, the provincial government departments, potential employers such as the mines and, in some cases, Indian and Northern Affairs Canada.

Considerable good work has been done to date: the NORTEP program, the recent trades training for mine employees, etc. The role of the community should be to support and promote these and similar initiatives in ongoing education and training.

Objective 4: Local Involvement: To achieve a higher proportion of northern native residents in management, professional technical and entrepreneurial positions.

The role of the community can be to encourage educational training and support those individuals, especially young people, who are trying to obtain and upgrade skills for personal advancement.

Objective 5: Business Services: To obtain better access to business and personal services, especially in banking, as well as other goods and services.

Stony Rapids has to become known as a place which is growing. A certain amount of community promotion may be necessary to let more southern communities such as La Ronge know that there are growing communities within the Athabasca Region.

9.0 MUNICIPAL CAPITAL PROJECTS

This section attempts to outline capital projects needed by the community over the next five years, along with possible funding sources. It is intended only as a start to the settlement's five year budgeting process and should be revised as often as required.

1. Erickson Street Replot: survey, road improvements

   Timing: 1985
   Estimate Cost: $3-5,000
   Source: Operational Grant?

2. Cemetery: access road, clearing, fencing

   Timing: 1985
   Cost Estimate: N|A
   Source: Operational Grant?

3. Solid Waste Disposal Site: clean-up

   Timing: 1985
   Cost Estimate: N|A
   Source: ?

4. Drainage of R6 Public Reserve:

   Timing: 1986
   Cost Estimate: $5,000
   Source: Operational Grant?

5. Cul-de-sac east of Block 6

   Timing: 1985
   Cost Estimate: $2.5 - $3,000
   Source: Operational Grant?

6. Industrial Park Development: roads, drainage, power

   Timing: 1985 and ongoing
   Cost Estimate:
   roads - $100,000, total
   power - $35,000, total (rebate)
   Source: Land Sales, if a Hamlet, otherwise individual builders or developers

7. R4 Development:

   Timing: 1986
   Cost Estimate: survey, roads, power, drainage, leveling - N|A
   Source: Land Sales, if a Hamlet, otherwise?

8. Playground Relocation to School Site:

   Timing: as required
   Cost Estimate: $4-10,000
   Source: Seasonal employment projects, CEIC

9. Beach Improvements: sand, signs, clearing, buoys, benches, site development:

   Timing: 1986
   Cost Estimate: $10,20,000
   Source: seasonal employment projects, CEIC

10. Gee Place Development: roads, power, telephone, drainage

    Timing: as required
    Cost Estimate: $50,000
    Source: SHC, Urban Affairs?

11. Water and Sewer System:

    Timing: unknown
    Cost Estimate: $4.0 million
    Source: Saskatchewan Water Corporation

Funding Sources

The Settlement has limited funding available for capital projects out of its operating grants. These could possibly be used for some of the smaller projects. The Settlement's capital grant has been committed almost in its entirety to the renovation of the curling rink to a community [illegible].

For new development areas, both residential, industrial and commercial, there seems to be no clear cut policy as to sources of funding from senior governments. Just the basic requirements of roads, power and drainage appear to be somewhat above the ability of the Settlement's ability to pay out of its operating grant if it is to maintain other basic services. This is clearly a need for policy and program initiatives from the Departments of Urban Affairs, Saskatchewan Housing Corporation, Saskatchewan Water Corporation, Saskatchewan Power Corporation and, possibly, the Department of Highways.

If the water and sewer system were to be installed within the near future, presumably roads would be developed to Gee Place and to the industrial area. However, it may be necessary to develop these areas earlier. In that event, the source of funding is still uncertain.

As a Settlement, Stony Rapids is not in a position to acquire title to land and therefore cannot sell land. As a northern hamlet, it would be in a position to do so. This may be a deterrent to the Settlement developing land and an incentive to the achievement of hamlet status.

A final source of funding may be contributions from private builders and developers who would benefit by the construction of roads and other services.

SUMMARY AND CONCLUSION

This Planning Study presents a description of the Settlement of Stony Rapids - its problems and opportunities in an isolated region that is experiencing significant change.

The community has been growing at a strong rate and this growth will probably continue in the future. This growth will emphasize the problems of the community - high shelter, energy, food and utility costs, isolation from important health, medical and educational services, a lack of developed, available land for housing, facility and business expansion, and the need for improved water supply and waste disposal services. Population growth will create a need for increased employment, and for improved and expanded educational, health, recreational and other services. These matters are discussed in the Study.

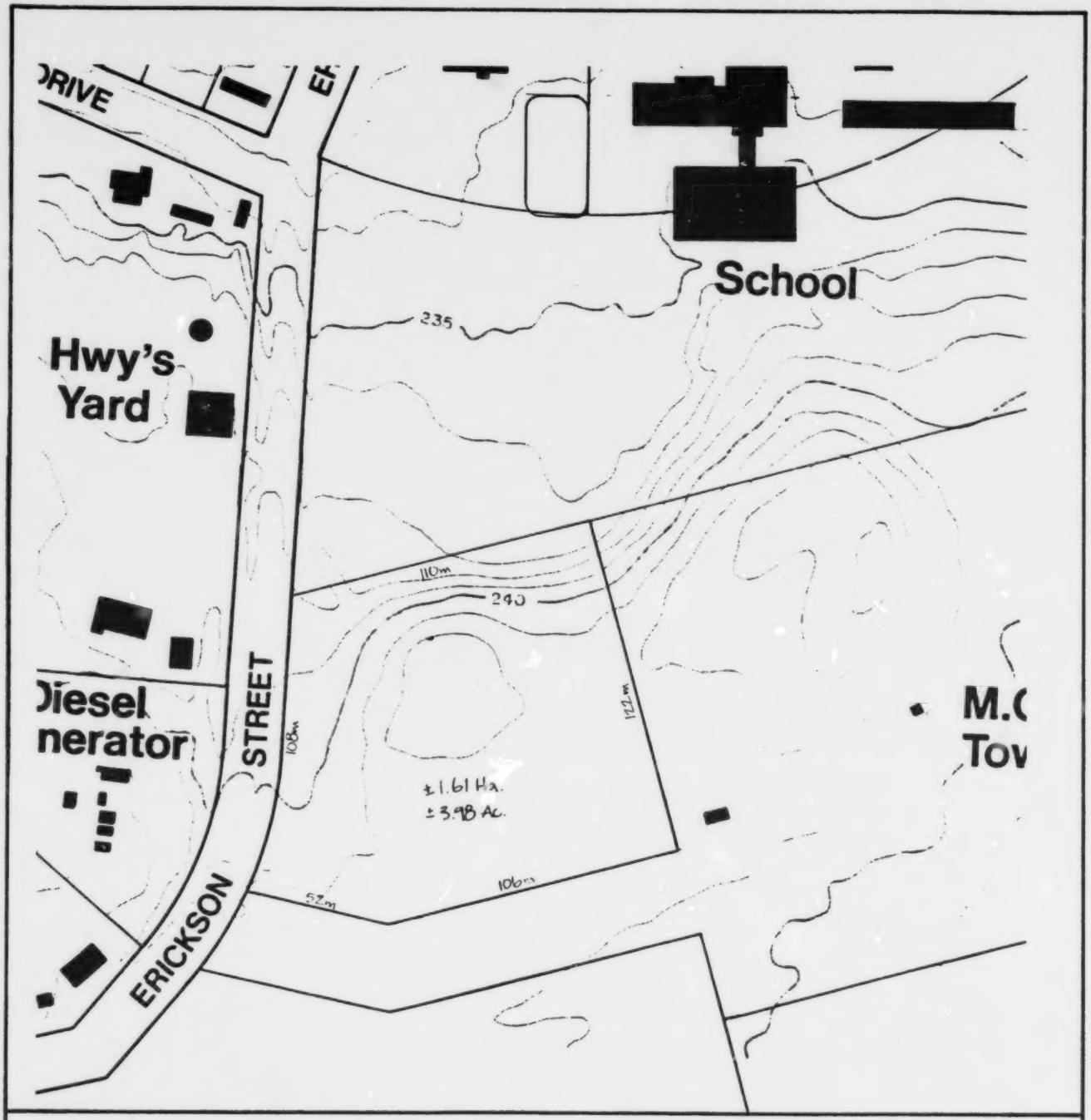
The Study makes recommendations as to how some of these problems can be addressed. It identifies the major capital costs which the Settlement faces over the next five years. The major interest of the Study is in the area of land use planning. The Study describes the physical conditions of the community. Land use plans are presented to guide the orderly expansion of the community.

Many of the issues being faced by the community require the assistance of senior levels of government. The Planning Study identifies where assistance is needed. Some of the impetus for growth is due to Stony Rapids' location as an emerging service and business centre in the region. If the community is to be a true regional centre, some basic servicing needs will have to be met.

Planning is a continuous process and must change with changing times. No doubt, some of the proposals of this document will change. However, this Plan represents a good starting point as the first Community Planning Study for Stony Rapids.

APPENDICES

A. Sketch Plans - Public Reserves

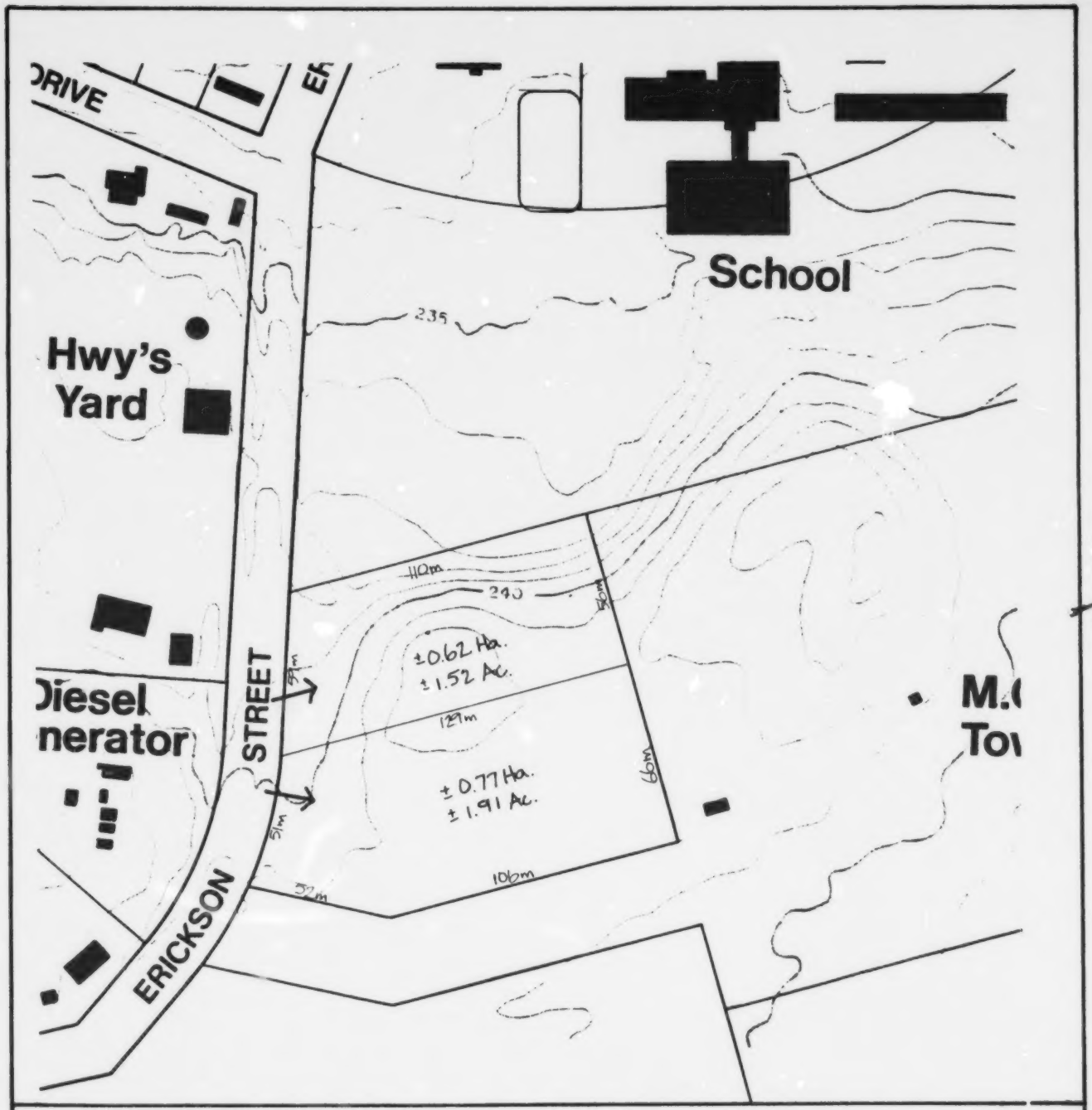


STONY RAPIDS

DEVELOPMENT OPPORTUNITIES

R4 - PUBLIC RESERVE

SUBJECT PROPERTY ACREAGE

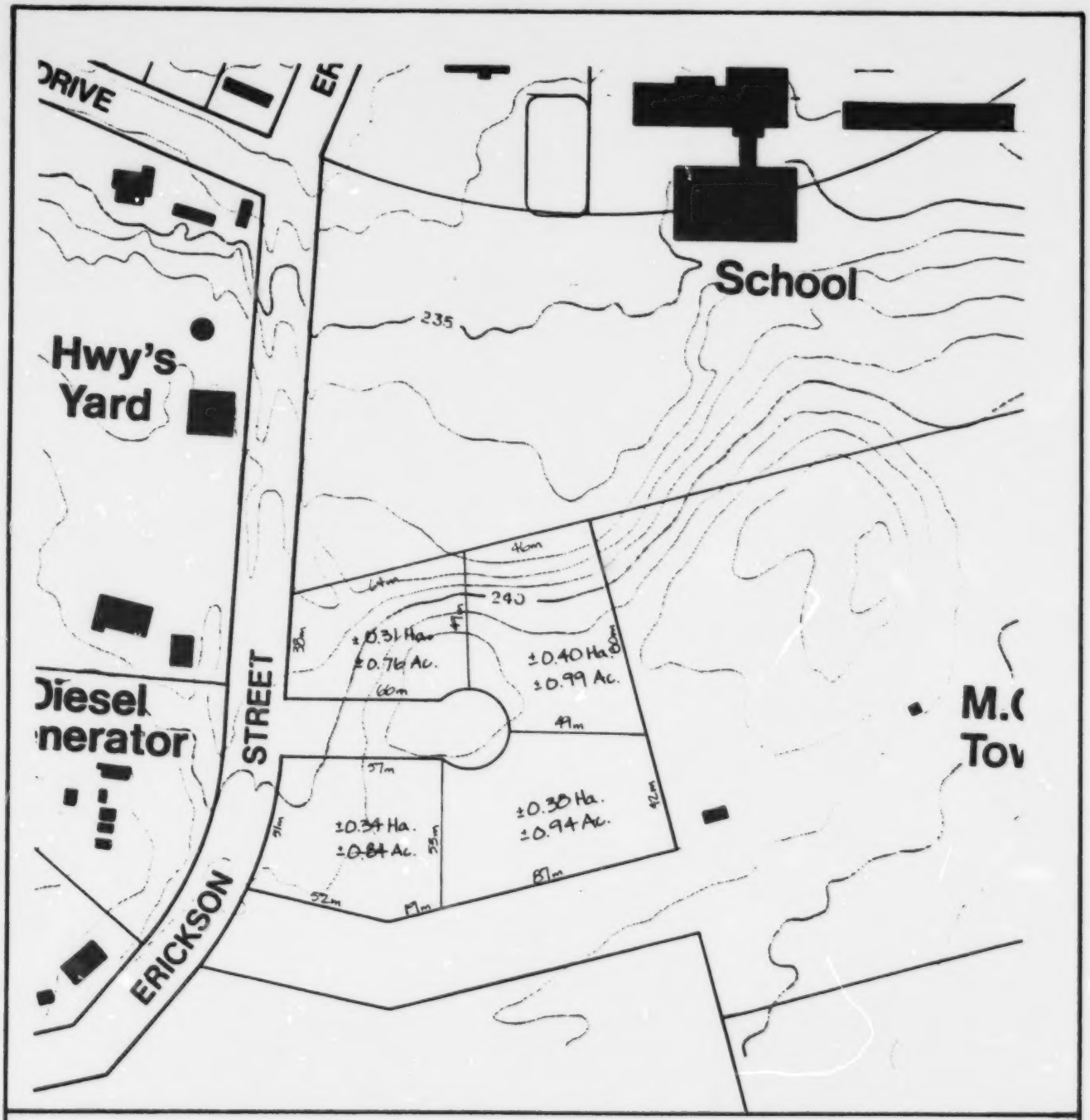


STONY RAPIDS

DEVELOPMENT OPPORTUNITIES

R4 - PUBLIC RESERVE

2 LOTS - APPROXIMATELY 1.5 to 2.0 ACRES

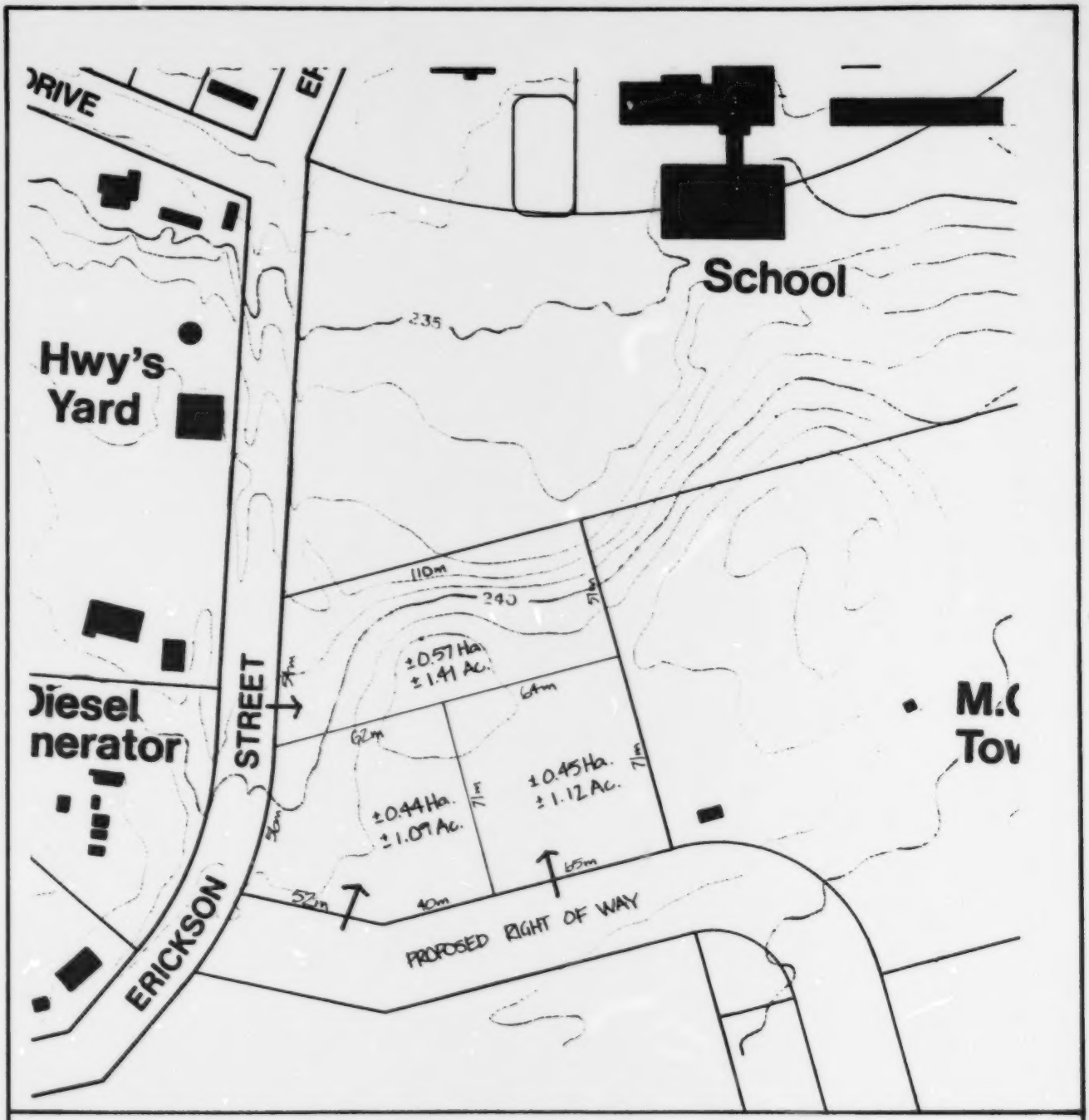


STONY RAPIDS

DEVELOPMENT OPPORTUNITIES

R4 - PUBLIC RESERVE

4 LOTS - APPROXIMATELY 0.75 to 1.0 ACRES

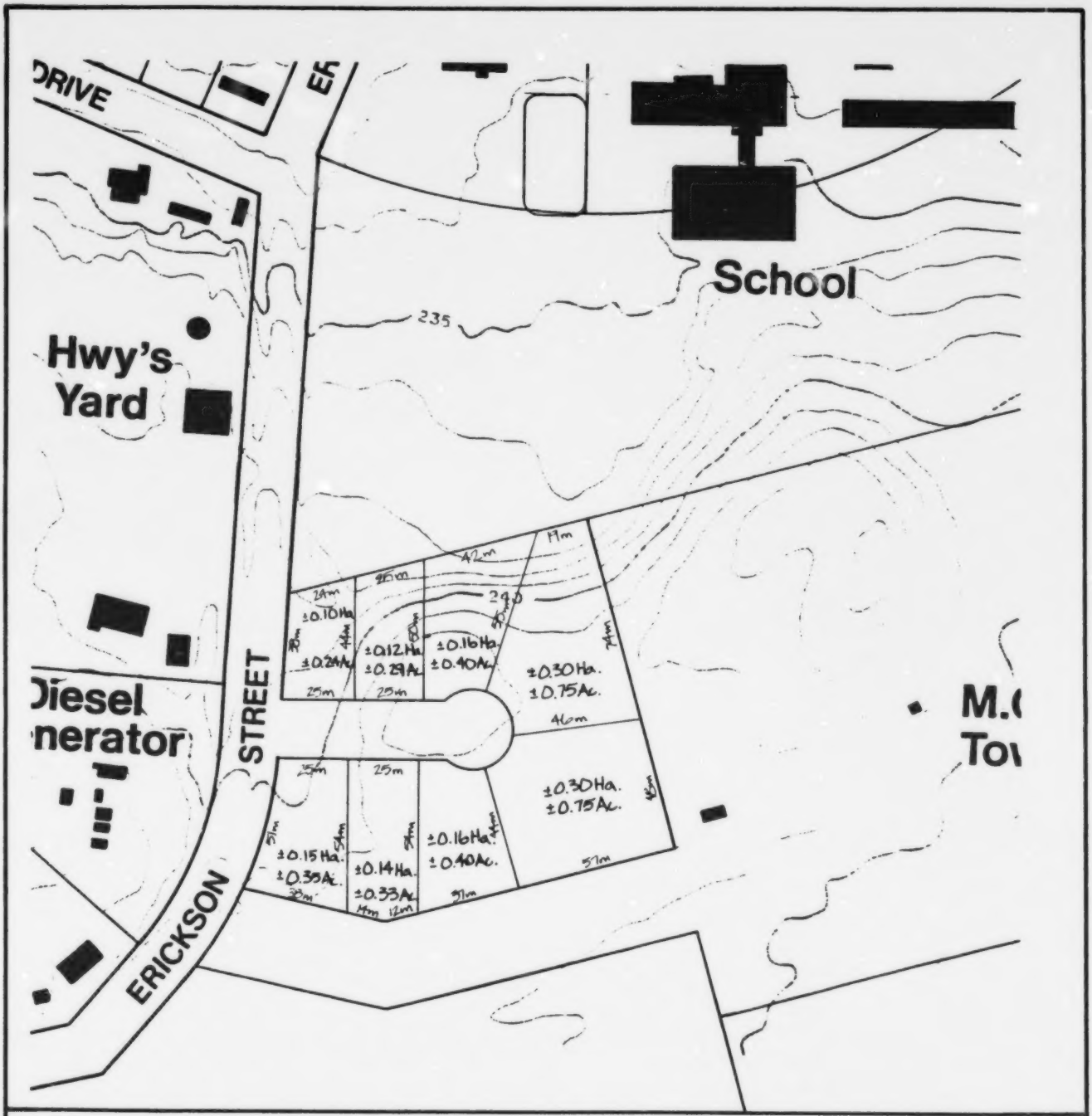


STONY RAPIDS

DEVELOPMENT OPPORTUNITIES

R4 - PUBLIC RESERVE

3 LOTS - APPROXIMATELY 1.0 to 1.5 ACRES

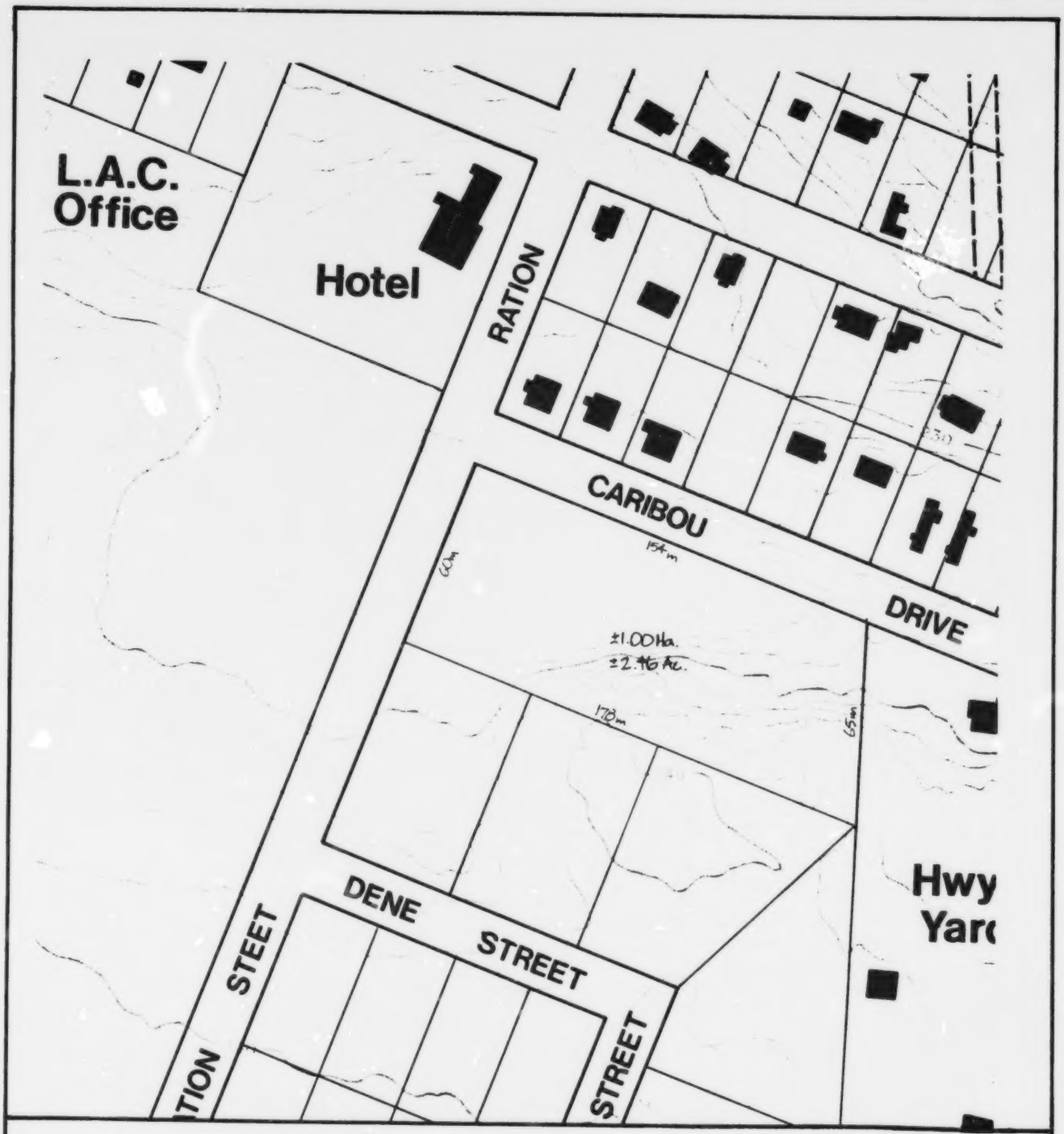


STONY RAPIDS

DEVELOPMENT OPPORTUNITIES

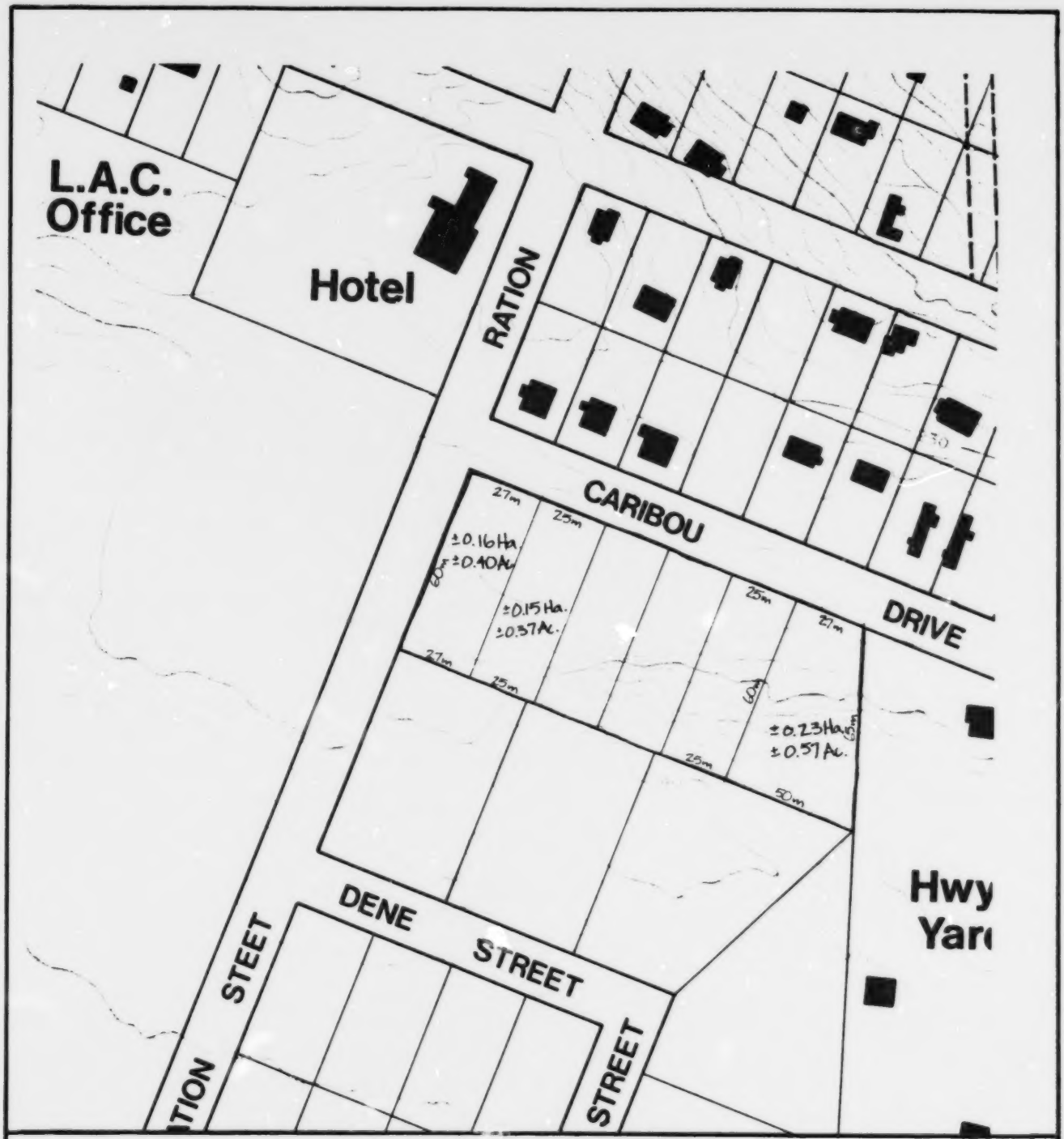
R4- PUBLIC RESERVE

8 LOTS - LESS THAN 0.5 ACRES



STONY RAPIDS
DEVELOPMENT OPPORTUNITIES
R6 - PUBLIC RESERVE

SUBJECT PROPERTY ACREAGE



STONY RAPIDS
DEVELOPMENT OPPORTUNITIES
R6 - PUBLIC RESERVE

6 LOTS - APPROXIMATELY 0.5 ACRES OR LESS

B. Site Evaluations

INTER OFFICE MEMO

Underwood McLellan Ltd.

TO Dave Klippenstein DATE October 5, 1984

FROM Arvid Pederson

RE Stony Rapids 31-02-1875-69-1

While on site the week of September 17 - 21, 1984 I reviewed several alternate sites for possible future development for the above noted northern settlement. I have summarized my findings below:

A. PUBLIC RESERVE R6 LOCATED SOUTH OF CARIBOO DRIVE

This area is very low, wet and marginally swamp with some evidence of surface boulders.

Extensive work will be required to upgrade this property to public reserve. Visual inspection indicates that surface drainage is a problem with existing drainage running across Cariboo Drive through Block 2 and downwards toward Fond du Lac river. Further investigation should be carried out to look into possibility of draining this property in a westerly direction.

This property has several possibilities for future development and could be incorporated into public reserve, residential housing or commercial.

Water and sewer mains as designed on Cariboo Street only service the north side of the street (Block 2); additional lots could be provided at minimal cost.

B. PUBLIC RESERVE ON ERICKSON STREET (BOUNDED BY PUBLIC RESERVE R4 AND PARCEL P)

This area's slopes are quite steep with positive drainage and the ground surface is very bouldery.

Parcel does not seem suitable for public reserve due to it's steep slopes. Commercial or industrial development appears to be the most likely use for this area with proper levelling.

It is my opinion that the lot size be of sufficient size that can accommodate proper levelling.

Servicing with water and sewer would be very economical since the water and sewer mains are designed to pass by this property.

C. FUTURE RESIDENTIAL DEVELOPMENT (EAST SIDE)

This area is in general uniformly sloping toward the Fond du Lac River.

...2

The area in question appears to be part of a fairly large water shed which extends south to airport, west to M.O.T. tower area and east to the height of land parallel to Black Lake Highway.

It is my recommendation that the surface drainage be interrupted at the northern boundary of the airport property and brought around behind the back of the most easterly lots to location of the existing drainage course approximately at the intersection of Robillard Street and Black Lake Highway.

Routing of the proposed connecting road between Erickson Street and existing Black Lake Highway is best suited to the concept that parallels the north side of airstrip and turns southeast at the east end of the airstrip to join to Black Lake Highway.

Trust this meets with your requirements.

Arvid Pederson, P. Eng.

/ls

C. Servicing Costs - Industrial Area

File - 1813-061.

NORTH - SASK. ELECTRIC LTD.

BOX 284 LA RONGE, SASK. S0J 1L0

December 6, 1984

David Klippenstein
Underwood McLellan Ltd.
Box 539, 300-3301 8th Street East
Saskatoon, Saskatchewan
S7H 5K5

Dear Mr Klippenstein

This letter will confirm the telephone message I left at your office Monday morning December 3, 1984.

As was discussed with you, in Mr Macdonald's office, we are quoting a construction cost estimate to install poles, anchors and primary conductor only into the industrial sub-division within Stony Rapids (Blocks 13, 14 and 15). That cost amounts to $36,657.00 and is valid for a period of thirty days.

If you decide to proceed with this project, please let us know as soon as possible to facilitate the ordering and transportation of material to Stony. We would also be in a position to quote you a firm price as you may know of some potential customers at that time.

If you require any further information, please contact this office.

Yours sincerely

G.E. Morris
T. A. II

GEM/lr

RECEIVED
UNDERWOOD McLELLAN LTD.
DEC 10 1984
ENGINEERING
CONSULTANTS
SASKATOON

INTER OFFICE MEMO

Underwood McLellan Ltd.

TO Dave Klippenstein DATE November 26, 1984

FROM Arvid Pederson

RE Stony Rapids 31-08-1875-69-1

The following is a preliminary cost estimate for developing the proposed industrial subdivision for above noted project.

These costs are based upon the remainder of the sewer and water systems that are in place.

Therefore, the summary of estimated costs are:

A	Water System	$200,000
B	Sewer System	$200,000
C	Building Services	$ 40,000
D	Roads and Drainage	$100,000
	TOTAL	$540,000

Hope this information is of benefit to you.

Arvid H. Pederson

/ls

D. List of References

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- Black Lake land claims settled. June, 1981.
- Gunnar fish plant may not open. June, 1981.
- New mine at Collins Bay? June, 1981.
- Where is all the uranium? June, 1981.
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- The Athabasca barges ... from paddle wheeler to diesel tug. October, 1981.
- Wollaston one of richest uranium areas in world. December, 1981.
- Commuter pickup points for northern mines. December, 1981.
- The Caribou. June, 1982.
- Northern Hospitals. February, 1983.

Articles in "The Northerner", La Ronge

- U.C. to become northern settlement. September 26, 1984.
- New DINA office in Stony. October 15, 1984.

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- Doctor to serve Uranium City for 3 months. January 10, 1984.
- Northern doctor stresses need for preventive care. February 6, 1984.
- Northern health care examined. February 6, 1984.